



NATIONAL REPORT OF WET SEASON AGRICULTURAL PERFORMANCE IN NIGERIA 2021

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National Agricultural Extension and Research Liaison Services (NAERLS)
Ahmadu Bello University, Zaria
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National Report of Wet Season Agricultural Performance in Nigeria 2021

National Agricultural Extension and Research Liaison Services,

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December, 2021

National Agricultural Extension and Research Liaison Services
Ahmadu Bello University
Zaria

Vision

To be the foremost Institute for agricultural extension research and capacity development for effective service delivery, increased agricultural productivity, sustainable agricultural growth and wealth creation.

Mission Statement

To develop, collate, evaluate and disseminate proven and relevant agricultural innovations; research on extension methodologies; and provide leadership in capacity building of stakeholders to meet the present and future agricultural development of the country.

Mandates

- Advance the frontiers of agricultural extension research and services
- Conduct agricultural performance assessment and provide feedbacks
- Build the capacity and skill of key actors in agricultural extension services
- Plan, coordinate, monitor and evaluate REFILS activities nationwide
- Package and disseminate improved agricultural innovations to target users in Nigeria
- Review and support the extension activities of agricultural research institutes

PREFACE

One of the core mandates of NAERLS is the annual assessment of agricultural performance in Nigeria. Despite the heightening insecurity and the COVID-19 threat, the 2021 Wet Season Agricultural Performance Survey was conducted from 29th August to 4th September, after the lockdown was relaxed. To conduct the Survey, NAERLS collaborated with the following Agencies and Organizations: the Federal Ministry of Agriculture and Rural Development (FMARD), the National Agricultural Seeds Council (NASC); the National Bureau of Statistics (NBS); the Nigerian Meteorological Agency (NIMET); the Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL), the Institute for Agricultural Research (IAR); the Institute of Agricultural Research and Training (IAR&T); the Lake Chad Research Institute (LCRI); the National Animal Production Research Institute (NAPRI); the National Roots Crops Research Institute (NRCRI); the National Cereals Research Institute (NCRI), the National Institute for Freshwater Fisheries Research (NIFFR), the Sasakawa Global 2000 (SG2000), the Agricultural Transformation Agenda Support Programme Phase-1 (ATASP-1) all the 36 States and FCT Agricultural Development Programmes (ADPs) as well as the 36 State Ministries of Agriculture and the FCT Department of Agriculture. Nineteen (19) teams consisting of 56 scientists covered the 36 States and the Federal Capital Territory (FCT). A monitoring team of six scientists, one per geo-political zone, participated in the survey. Agricultural production situation was assessed as well as the impact of floods on food production due to widespread incidence of flood in the country. The impact of insurgency on agricultural production was also part of the survey. The report provides an insight into annual cropping season with emphasis on food production, crop pests and disease situation, post-harvest losses, market situation, commodity prices, agro-meteorological conditions, and agro-pastoral situation across the country.

The survey also provides insight on performance of policy thrust as well as progress made on special interventions and programmes on agriculture by the Federal and States Governments. The outputs of the evaluation exercise are put together into an executive summary and national report, which are usually circulated to all States, relevant agencies and other stakeholders. The report provides findings and data that can guide policy formulation and focused research in agriculture. Floods are becoming increasingly a common and recurring disaster annually in the country; therefore, reports of floods were documented nation-wide. The frequency, severity, and spread of these floods increased significantly and were monitored up to September 2021. In an effort to improve the quality and reliability of the data generation, NAERLS continually explores best options in strengthening the capacity of key partners in data collection and management.

NAERLS sincerely appreciates farmers and farmers' groups, officials of Ministries, Departments and Agencies (MDAs) at Federal and State levels for contributing substantially to the success of the field work. We are highly indebted to the Honourable Minister of Agriculture and Rural Development, Dr Mohammed Mahmood Abubakar and the Honourable Minister of State, Alhaji Mustapha Baba Shehuri for their untiring support. We greatly appreciate the support of NAERLS' Board Chairman, and the Vice-Chancellor, Ahmadu Bello University, Zaria, Prof. Kabiru Bala. As stakeholders browse this report, suggestions and comments are welcome for improvement.



Prof. E.I. Ikani

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LIST OF ACRONYMS/ABBREVIATIONS

ADP	-	Agricultural Development Programme
AfDB	-	Africa Development Bank
APS	-	Agricultural Performance Survey
APSR	-	Agricultural Performance Survey Report
ASC	-	Agro-Service Centres
BES	-	Block Extension Agent
CAYS	-	Crop, Area and Yield Survey
CBARD	-	Community Based Agricultural and Rural Development
CGIAR	-	Consultative Group on International Agricultural Research
COVID-19	-	Coronavirus Disease 19
EA	-	Extension Agent
ECOWAS	-	Economic Community of West African States
FAO	-	Food and Agriculture Organization of the United Nations
FCT	-	Federal Capital Territory
FDA	-	Federal Department of Agriculture
FDAE	-	Federal Department of Agricultural Extension
FDF&A	-	Federal Department of Fisheries and Aquaculture
FDAP&HS	-	Federal Department of Animal Production and Husbandry Services
FDV&PCS	-	Federal Department of Veterinary and Pest Control Services
FNT	-	Fortnight Training
IAR	-	Institute for Agricultural Research
IAR&T	-	Institute of Agricultural Research and Training
ICRISAT	-	International Crops Research Institute for the Semi-Arid Tropics
LCRI	-	Lake Chad Research Institute
LGA	-	Local Government Area
MoA	-	Ministry of Agriculture

MOP	-	Muriate of Potash
MTP	-	Management Training Plot
MTRMs	-	Monthly Technology Review Meetings
NA	-	Not Available
NAERLS	-	National Agricultural Extension and Research Liaison Services
NASC	-	National Agricultural Seeds Council
NAPRI	-	National Animal Production Research Institute
NBS	-	National Bureau of Statistics
NCRI	-	National Cereals Research Institute
NiMET	-	Nigerian Meteorological Agency
NIRSAL	-	Nigeria Incentive-Based Risk Sharing System for Agricultural Lending
NRCRI	-	National Root Crops Research Institute
NPAFS	-	National Programme on Agriculture and Food Security
NPFS	-	National Programme on Food Security
ODK	-	Open Data Kit
OFAR	-	On Farm Adaptive Research
PM	-	Programme Manager
P&PCD	-	Planning and Policy Coordination Department
RID	-	Rural Infrastructure Department
RTEP	-	Root and Tuber Expansion Programme
SG2000	-	Sasakawa Global 2000
SPAT	-	Small Plot Adaptation Technique
SRRBDA	-	Sokoto Rima River Basin Development Authority
SSP	-	Single Super Phosphate
T&V	-	Training and Visits
ZEO	-	Zonal Extension Officer

TABLE OF CONTENTS

CHAPTER	TITLE PAGE	PAGE
	NAERLS VISION, MISSION AND MANDATE	
	PREFACE	
	TABLE OF CONTENTS	
	EXECUTIVE SUMMARY	
1.0	INTRODUCTION	
2.0	METHODOLOGY	
3.0	WEATHER SITUATION	
4.0	FLOOD DAMAGE ASSESSMENT	
5.0	USE OF IMPROVED FARM INPUTS	
6.0	CROP PESTS AND DISEASES	
7.0	AGRICULTURAL MECHANIZATION	
8.0	COST OF PRODUCTION OF MAJOR CROPS	
9.0	FOOD COMMODITY PRICES	
10.0	FARMERS' ASSESSMENT OF CROPS PERFORMANCE	
11.0	PRODUCTION ESTIMATES FOR MAJOR CROPS	
12.0	LIVESTOCK PRODUCTION SITUATION	
13.0	FISHERIES PRODUCTION SITUATION	
14.0	IMPACT OF COVID-19 ON AGRICULTURAL PRODUCTION	
15.0	ADP PROJECT EXTENSION ACTIVITIES	
17.0	SPECIAL PROGRAMMES	
18.0	GENERAL CONSTRAINTS IN AGRICULTURAL. PRODUCTION	
19.0	CONCLUSIONS & RECOMMENDATIONS	

EXECUTIVE SUMMARY

The 2021 Agricultural Performance Survey (APS) was carried between 29th August to 4th September by the NAERLS in collaboration with Agricultural Development Programmes (ADPs), States' Ministries of Agriculture (MoAs), Federal Ministry of Agriculture and Rural Development, Research Institutes, other relevant agencies and NGOs. The survey was conducted across the 36 States of the Federation and FCT using the Participatory Rural Appraisal (PRA) technique. Structured copies of questionnaire, checklists, field visits, focus group discussions, key-informant interviews and review of official documents were used for data collection. The results and findings are summarized below.

Weather Situation

Rainfall was higher nationwide in 2021 than 2020- except in the North West and South East zones that had diffused rainfalls. Some States in the North West and North East zones recorded late onset, irregular, and poorly distributed rainfalls. There were moderate to severe dry spells/droughts between April and July in the North Central zone. Some LGAs in the North East and North-West zones experienced mild spells between May and July with the most severe event recorded in Kebbi State. The temperature was higher in the North East and North West zone, it was moderate in the North Central and South East zones but was moderately lower in the South West and South South zones in 2021 compared against the 2020 records.

Flood Damage Assessment

Thirty-five (35) States and FCT reported flood cases, although 27 States were earlier predicted by NiMet as vulnerable in 2021. The flood intensity varied across states. Consequently, humans, crops, livestock, fisheries, vehicles, schools, houses were adversely affected. Many people were displaced from their homes. The flood was more severe in the South West, the South South and the North Central zones with considerable damage in the South East and North East zones.

Use of Improved Seeds and Seedlings

Twenty-nine (29) states procured and distributed seeds, 6 states procured seedlings, 2 states procured suckers, while 17 states procured and distributed cuttings to farmers. Most inputs were reported to be adequate and affordable.

Procurement and Distribution of Agrochemicals, Fertilizers, Farm Equipment

About 14 states procured and distributed agrochemicals and growth enhancers. Significant quantities of agrochemicals were distributed in almost all states except in the FCT. There was no report on the quantity of agrochemicals procured or distributed in some states in the South East. Most of the agrochemicals procured and distributed were reported to be adequate and affordable. Major sources of the agrochemicals were States and Federal MDAs. Nineteen (19) States and

FCT procured and distributed fertilizers. Some NGOs also distributed various quantities of fertilizers. The level of procurement and distribution of farm equipment was low. Only 5 states (Kwara, Kogi, Anambra, Lagos and Bayelsa) procured and distributed farm equipment (tractors and agro-processing equipment).

Incidence of Pests and Diseases on Crops

Pests and diseases were reported on tubers in 12 states. Cassava was affected by blight, cassava mosaic virus, cercosporal spots and root rot. Yam was affected by nematodes, mealy bug and beetle. The severity of the attack on crops ranged from light to moderate, thus, most farmers apprehended some yield loss between 5% to 30%. Fungal diseases, root rot and nematodes affected cocoyam. Sweet potatoes and Irish potatoes were moderately affected by weevil and blight in Anambra and Plateau states.

More than 30 States reported pests/diseases of cereals and legumes. The pest and diseases include army worm, leaf blight, stem borers, rodents, blast, birds, weevils, striga and frog eye. Fall army worms predominantly affected maize, rice, soybeans, cowpea and groundnut. The estimated loss was put at 40–65% across the states. Tomatoes and pepper were infected in Kano, Gombe, Edo, Akwa-Ibom, Ekiti, Ogun, Oyo and Osun states. The effect of *Tuta absoluta* was moderate in Kano State but less severe in Akwa Ibom State. Thus, yield loss was estimated at 2% - 30%. Aphids severely damaged pepper in Gombe State, fruit rot was slightly prevalent in Osun State, while moth affected guava in Akwa Ibom State. General control measures employed were spraying with pesticides, insecticides, fungicides, early harvesting, soil treatment, dry season farming, use of improved disease-resistant varieties and cultural methods (e.g., Neem tree extract).

Agricultural Mechanization and Animal Traction

The functional government tractors in 2020 and 2021 were 2,335 and 3,476 respectively. The new figure represented about 49% increase. Similarly, the total functional private tractors in 2020 and 2021 were 812 and 1,008 respectively (a 24% increase). In the same vein, non-functional government tractors increased from 2,039 in 2020 to 2,797 in 2021; a 37% increment. Use of animal traction was peculiar in some northern states (Kano, Borno, Bauchi, Adamawa and Kebbi) states. Adamawa State had the highest animal traction usage in both 2020 and 2021.

Cost of Tillage Operation

The cost of tillage varied across the zones with a range of 8% - 38% increase. There were increases in the costs of tillage in 2021 compared to 2020 in all zones except in the South South zone where the average cost of ploughing/Ha remained the same in 2020 and 2021.

Post-Harvest Losses

Post-harvest loss occurred in crops, animals, and animal products. Generally, the loss occurred during harvesting, processing, transportation, storage and was caused by pests/diseases and theft.

Rice, maize and onions recorded the highest loss estimated at 80%, 70% and 50% respectively. In livestock, sheep, cow, goats, broilers and layers were majorly affected with degree of loss recorded at varying percentages of between 10%–75%. The loss was caused majorly by theft and diseases outbreaks. Invariably, animal products such as milk, eggs, meat, bones, hides and skin were affected. Two products (eggs and milk) experienced huge loss in about 5 States.

Grain Reserves

The common grain reserve facilities were warehouses, ‘rhumbus’ and silos. The combined capacity of all state-owned grain reserves in 2021 was 676,300MT for the storage of maize, sorghum and millet. Federal Government grain reserves of combined capacity of 1.336mMT are located across the country and most of these were functional as at the time of data collection. Some silos had been outsourced to private organizations for proper management in some states.

Cost of Producing Major Crops

Generally, the cost of producing major crops in 2021 increased across the country as compared to 2020. This might be attributed to high cost and unavailability of inputs as well as insecurity.

Food Commodity Prices

There was increase in the prices of almost all food commodities nationwide in 2021 against 2020 records. The percentage increase in the price of some food commodities was as high as 135% (Imo and Abia) and as low as 2.3% (Cross River). Averagely, 67% price increment occurred on beef, chevon and mutton nationwide in 2021. Similarly, the prices of fresh and dried fish increased to 11.7%, and up to 75% across the country.

Sources and Usage of Improved Seeds and Fertilizers

About 4% of the farmers received government inputs in 2020 and 2021(2% of these received the inputs in both years). These results indicated inadequate quantity of farm inputs. Inorganic fertilizer was scarcely used by majority of farmers. Farmers affirmed that fertilizer was accessible but not affordable. The quantity of organic and inorganic fertilizers applied by farmers was reported to be insufficient. Use of improved seeds was generally low nationwide. While 67% of the farmers were aware of improved seeds, 48% of them sourced the improved seeds from open markets, government facilities and agro-dealers.

Food Consumption Pattern and Household Dietary Diversity

The Household Dietary Diversity Score (HDDS) was based on food consumed out of the 12 food groups by any household within 7 days. Starchy foods and vegetables constituted the main foods consumed by the farmers. Other meals containing oil and fats were also consumed. Poor consumption of proteins (legumes, meat and fish) and fruits was recorded. This could be attributed to poverty and poor knowledge of balanced diet and food nutritional value.

Production Estimates of Major Crops

Majority of the farmers interviewed cultivated land area between 0.75 and 2.5Ha in 2021 compared to 4Ha in 2020. This was partly related to the incidence of insecurity, kidnapping and banditry. Invariably, the low farm area cultivated may affect crop production and the volume of harvest in 2021.

Rice, Maize and Sorghum

Estimated total land area devoted to rice production in 2020 was 4.195mHa; this has increased to 4.306mHa in 2021(an increment of 2.98% across the states). The total production for rice marginally increased by 2.08%, from 8.172mMT in 2020 to 8.342mMT in 2021.

The total cultivated land area for maize increased by 2.59% in 2021 compared to 2020. Estimated aggregate land area for maize is 6.205mHa in 2021 as against 6.048mHa in 2020. The average national maize output in 2021 was expected to increase by 2.75%. The 2021 aggregate output was expected to reach 12.744mMT compared to 12.403mMT in 2020.

The land for sorghum increased by 2.27% in 2021 compared to 2020. The aggregate figures for cultivated sorghum land area is 5.93mHa in 2021 against 5.80mHa in 2020. The national sorghum production is projected to increase by 2.05%. Estimated national sorghum yield increased marginally to 1.13 ton/Ha. Katsina and Niger states reported the lowest sorghum output.

Millet, Cowpea and Groundnut

The total land area devoted for millet increased marginally at 0.29%, between 2020 (1.762mHa) and 2021 (1.767mHa). The millet output was 1.905mMT in 2020 against 1.927mMT in 2021. This indicated a small increase (1.13%) for the projected output.

Cowpea was cultivated on 4.974mHa in 2020 as against 5.042mHa in 2021. This indicated an increase of 1.38%. The aggregate national cowpea output increased by 1.94% in 2021 with the highest increase in Enugu followed by Osun. Meanwhile, Zamfara and Katsina recorded the highest decrease in cowpea output in 2021.

The estimated total cultivated land area for groundnut in 2020 was (3.596mHa); it has increased to 3.602mHa in 2021. This implied an increase of 2.27% land area. However, projected groundnut output decreased nationally from 4.464mMT (2020) to 4.228mMT (2021) - indicating 0.07% decrease.

Soybean and Beniseed

The 2021 soybean production was estimated at 1.166mMT, about 5.43% increase compared to 2020. The estimated cultivated land area for soybean increased in 2021 by 4.52% over 2020. Soybean production remained stable in Benue (largest producer), Kaduna, Kano, Kwara, Niger and Taraba States. The national average yield remained 0.92 tons/Ha in 2020 and 2021. The total land area cultivated for beniseed in 2021 was 0.860mHa, about 4.86% increase compared to 2020. The production output was 0.57mMT (an increase of 3.16% compared to 2020). The national average yield was 0.68 tons/Ha in 2020 and 0.67 tons/Ha in 2021.

Yam, Cassava and Cocoyam

The states with high production rate were Benue, Cross River, Ebonyi, Edo, Enugu, Nasarawa, Niger and Taraba. The estimated land area cultivated for yam increased from 7.13mHa in 2020 to 7.5mHa in 2021. Yam yield increased by 6.28% when compared to 2020. The national average yield increased from 7.90 tons/Ha in 2020 to 7.99 tons/Ha in 2021.

Farmers in North Central, South East and South West zones cultivated cassava. The major producing states are Benue, Cross River, Imo, Kogi, Ondo and Rivers. Cassava production increased significantly in 2021. This could be attributed to the increase in price and high demand for cassava by-products by manufacturing industries. The land area cultivated for cassava increased by 3.85% compared to 2020. Hence, an increase of 4.81% in production output was expected in 2021. The average yield of cassava increased from 5.78 tons/Ha in 2020 to 5.84 tons/Ha in 2021. Cocoyam was cultivated on 1.389mHa in 2021, about 4.28% increase compared to 2020. Its production output increased by 4.26% when compared to 2020. The national average yield of cocoyam was 5.91 tons/Ha in both 2020 and 2021.

Cotton and Ginger

Cotton cultivation recorded a marginal increase of 2.50% in 2021 as compared to 2020. However, most farmers in the producing states have shifted to crops that have higher yield and higher market demand. The national average yield for cotton was 0.46 tons/Ha in 2020 and 0.48 tons/Ha in 2021. Ginger production remained unchanged compared to 2020 in Bauchi and Benue states in 2021. Kaduna and Nasarawa states recorded a marginal increase. The national average yield increased from 6.68MT/Ha in 2020 to 6.91MT/Ha in 2021.

Vegetables: Tomato, Onion, Okra

Tomato was grown across the states. The 2021 forecast showed an increase of 5.8% in tomato production from 3.294mMT in 2020 to 3.475mMT in 2021. An estimated total cultivated land area of 595,860 Ha was recorded for onion production; and that was higher than 589,620 Ha farmed in 2020. Onion production increased by 1.13% from 1.52mMT in 2020 to 1.53mMT in 2021. The average national yield of 2.58MT/Ha was recorded. Okra production increased nationwide by 2.55% with 1.758mMT in 2020 to 1.803mMT in 2021. All states, except Edo, Kebbi, Sokoto and Zamfara recorded increase in okra production.

Plantain/Banana

Southern states are major producers of plantain and banana in Nigeria. In 2021, the national production level was estimated to be 7.4 MT, showing an increase of 32%, compared to 2020 records.

Livestock Production

Poultry production recorded 7.18% increase with 240,481,945 (2021) against 223,704,135 (2020). The number of cattle increased by 0.81% from 20,585,153 in 2020 to 20,764,244 in 2021. Sheep increased by 2,100,979, a 2.5% of production size. Goat increased by 1,798,160 some 3.75% of the size produced in 2020. Other animal production recorded little increase. However, there were varying degree of disease incidences in livestock production in 2021. There were records of Contagious Bovine Pleuropneumonia (CBPP), Foot and Mouth Disease (FMD), Helminthiasis, *Peste des Petits Ruminants* (PPR), African Swine Fever (ASF), Newcastle Disease (NCD), Coccidiosis, Avian Influenza (AI) and Anthrax. The use vaccine, biosecurity measures and disease surveillance to curb and control the incidences were recorded across the states.

Fisheries Production

In 2021, 28 states and FCT provided data on aquaculture out of which 23 states indicated commercial farms for fish production. There was minimal increase in fish production across the country compared to 2020. However, Lagos, Ondo, Osun and Oyo witnessed decreasing fish farming. This decrease was partly caused by the increase in the cost of inputs. There was paucity of artisanal fisheries data in all the zones. Though, Lagos, Ekiti, Delta and Imo states had relative increase in artisanal fishing compared to 2020. This might be linked to high cost and short supply from cultured fishes. Six States reported incidences of fish diseases. Few states had adequate fishery inputs in 2021.

Problems requiring Research Solutions

Some agricultural problems indicated by farmers include post-harvest loss, lack of and high cost of technology, modern storage system, poor management of fertilizer residues in soil, low knowledge of climate smart agriculture, integrated disease/pest control, feed formulation and organic drug discovery for both livestock and fisheries. All these problems could be handled via consistent research and application of research findings through the extension services.

Challenges hindering ADPs' Performance and Training Needs

The ADPs were not performing up to full capacity. Their performances were hindered by the absence of sustainable funding, non-replacement of staff, infrastructural deficiency (mobility) and lack of extension materials. Meanwhile, the ADPs demanded for staff training in ICT, data collection skills, M&E skills and rural extension methodology.

In the same vein, farmers also requested for training in modern fishery and processing, horticulture and modern livestock production techniques.

Intervention Programmes

The programmes being sponsored in many of the states were FADAMA III, IFAD, ATASP-1, ICRISAT, APPEALS, FAO, World-Bank, UNDP, AGRA, SG-2000, Feed the Future etc. The programmes' key activities included: capacity building of farmers, value chain integration and

creation of FFS/FBS/Cooperatives. Programme achievements were up to 95% in the beneficiary states.

General Constraints in Agricultural Production

Similar to previous years, the Covid-19 pandemic impacted on agricultural activities in Nigeria though with lesser impacts. Poor funding remained a constraint to extension service delivery. There was drastic increase of armed banditry (especially North-West), kidnapping and cattle rustling across the nation compared to 2020. There was reduction in farmers/herders crises and other communal clashes. All these greatly affected agricultural activities with resultant negative impacts on national food and nutrition security.

Recommendations

The 2021 field outlook and general production forecasts showed that outputs would be less than the 2020 records in nearly all areas of agriculture. It is therefore recommended that governments and farmers' groups should invest in climate-smart agriculture. It is imperative that the extension and advisory policy bill should be accelerated; sustainable grassroots extension delivery institutions should be established; there should be an increased support for the National Farmers' Helpline Center as an e-extension strategy to boost advisory services. Agricultural Trust Fund should be set and be responsive to cater for farming activities during emergency periods such as COVID-19.

1.0 INTRODUCTION

The Agricultural Performance Survey (APS) is one of the key mandates of the National Agricultural Extension and Research Liaison Services (NAERLS), Ahmadu Bello University, Zaria. Tools for the survey are reviewed each year for improvement in the data collection and outputs. Stakeholders on agricultural data generation and dissemination consisting of Federal, States, National and International Governmental and non-Governmental Organizations validate the survey tools for inclusiveness of issues in agricultural development across the sector and related sectors. Agricultural Development Programmes and Ministry of Agriculture staff across the country were trained virtually on the use of ODK to capture data and how to correctly fill the questionnaire and other tools which were dispatched ahead of the field exercise to relevant Departments in the Federal and State Ministries of Agriculture, the State Agricultural Development Projects and other agencies. The tools were dispatched earlier to ensure that the agencies collate and certify the available data prior to the commencement of the survey.

The survey has four strategic objectives.

- Assess the performance of the agricultural sector during the wet season and forecast the likely production outputs for the year.
- Identify constraints to increased agricultural productivity.
- Identify conditions affecting effective technology transfer and advisory services within the season; and
- Provide feedback on field situation and farmers' problems for improved research and policy action.

The 2021 APS field work was conducted between 29th August to 4th September by the Institute in collaboration with relevant agencies, ministries and organizations

The APS Report is usually presented publicly during the World Food Day celebration by the Honourable Minister of Agriculture and Rural Development. Findings in the report assist the Government in assessing the agricultural sector performance as well as providing policy direction in achieving the desired food security drive of the country.

2.0 METHODOLOGY

Nineteen (19) multi-disciplinary teams of three scientists each conducted the survey across the 36 States of the Federation and FCT using Participatory Rural Appraisal (PRA) techniques. Structured questionnaire, checklists, field visits, focus group discussions, key-informant

interviews and review of official documents were used in data collection. Due to the challenges of insecurity and COVID-19 pandemic, an innovative on-line training was adopted to build the capacity of staff of ADPs and State Ministries of Agriculture across the country on the filling of the survey tools and on the use of ODK to capture data for the exercise. The primary data collection instrument was a questionnaire (copies were served to the ADPs, Ministries and other Parastatals). Sampling approach; two ADP zones per State, two LGAs per zone, one community per LGA and five respondents per community were selected making a total of 725 respondents nation-wide. The farmers' interview covered agricultural value chain activities. In furtherance of value addition, to the exercise in terms of quality, utility and depth of data generated, data from farmers were captured electronically using tablets. Wrap-up sessions to validate data generated were held with officials of the State ADPs and Ministries of Agriculture. In some instances, farmer's organizations were also presented with the collected data for validation. Data collected were analyzed and results presented in tables, figures, charts and plates.

3.0 WEATHER SITUATION

3.1 Rainfall

Rainfall was higher across the six geopolitical zones in 2021 than in 2020 except in the North West and South East zones where the trend of rainfall was largely diffused. (Tables 3.2 and Table 3.4). Rainy days in 2021 was also comparatively higher than that of 2020. (Tables 3.8 and 3.11), Although flood occurred during the two years - higher flood incidences occurred in 2021 affecting 35 States across the nation. The onset of rainfall was late, irregular, and poorly distributed in most of the states especially in the North West and North East zones in 2021. Despite flood incidences in about 33 states, there were moderate to severe cases of dry spell/drought in all the states in the North Central zone; and from April to July and in Abia, Anambra, Edo, Enugu, and Cross River States in the North East and North West. There were mild dry spells were reported from May to July in some LGAs. The dry spell incidences were however severe in in Kebbi State.

North East

Total amount of 5813 mm rainfall was recorded for the entire country in 2021 as against a total amount of 6960.7 mm recorded in 2020 in each of the zones as shown on Table 3.1. Meanwhile, the North East zonal records showed that the first rainfall was recorded in the month of April in Gombe State and fully established in June across all the States in 2021. Bauchi State recorded

the highest amount of rainfall of 1596.9 mm in the zone while Yobe State had the least amount of rainfall 635.4mm which was lower than what was recorded in 2020. The highest total monthly rainfall for the North East zone was 1719.6mm recorded in the month of August in 2021. The total rainy days for the zone was 51 days in 2021 which was lower than that of 2020 (57 days).

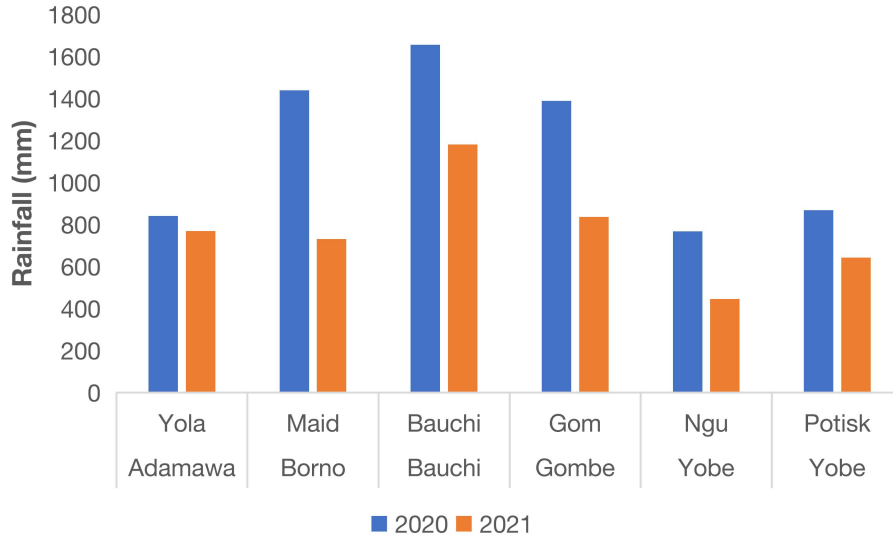


Figure 3.1: North East rainfall distribution

North West

The first rainfall was recorded in this zone in Zaria, Kaduna State in March and fully established in the month of May across the zone. The highest amount of rainfall was experienced in Kaduna with a value of 1434.8 mm, while the least amount of rainfall was experienced in Jigawa with a value of 601.2 mm in 2021 as shown in Table 3.2. The total rainy days for the zone in 2021 was recorded as 51 days which was lower than that of 2020 (57 days).

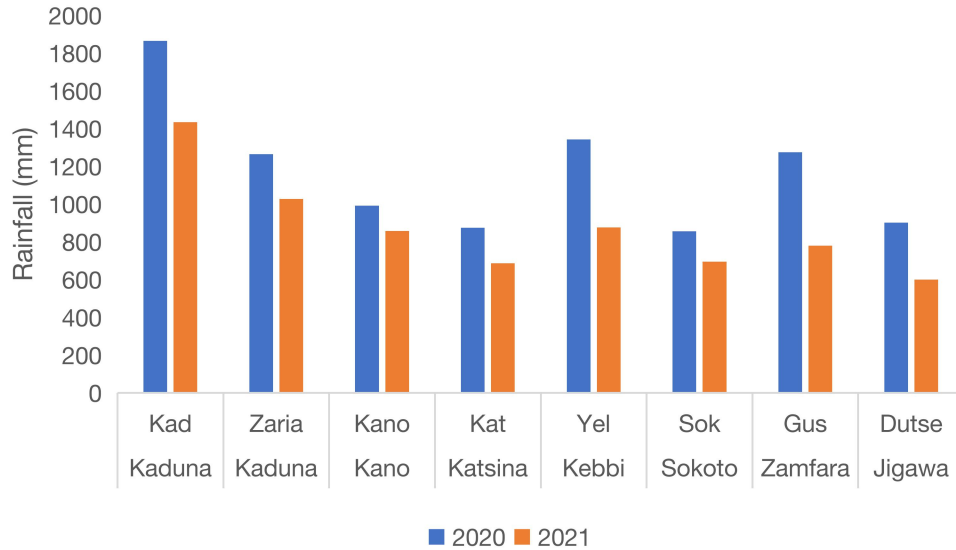


Figure 3.2: North West rainfall distribution

North-Central

The commencement and establishment of rainfall was in March across the states in this zone except Benue State which experienced its first rainfall in April, 2021. For monthly rainfall, the highest amount of rainfall was experienced in August with a total of 3304.3 mm in 2021 which was higher than 1925 mm received in 2020 in the same month (Table 3.3). Highest amount of rainfall was experienced in Taraba State in 2021 at 2314.7 mm. The total amount of rainfall in this zone for 2021 was 12762.6 mm, which was lesser than what was received in 2020 with a total amount of 13196.8 mm. The total rainy days for the zone in 2021 (85 days) was higher than in 2020 (80 days).

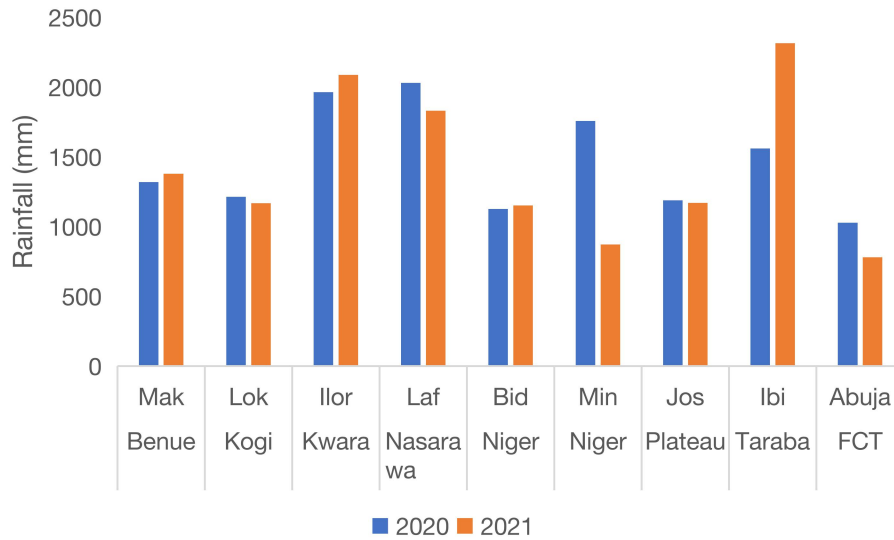


Figure 3.3: North West rainfall distribution

South East

The highest rainfall was experienced in Anambra State in 2021 with 3480 mm while the least rainfall was experienced in Ebonyi State with 1082.6 mm. The total amount of rainfall in the zone was 10833.37 mm in 2021 (Table 3.4) and it was slightly lower than what was experience in 2020 (10329 mm). Commencement of rainfall was in February and was fully established in March across the States in the zone. The total rainy days for the zone in 2021 (118 days) was higher than the 2020 of 114 days.

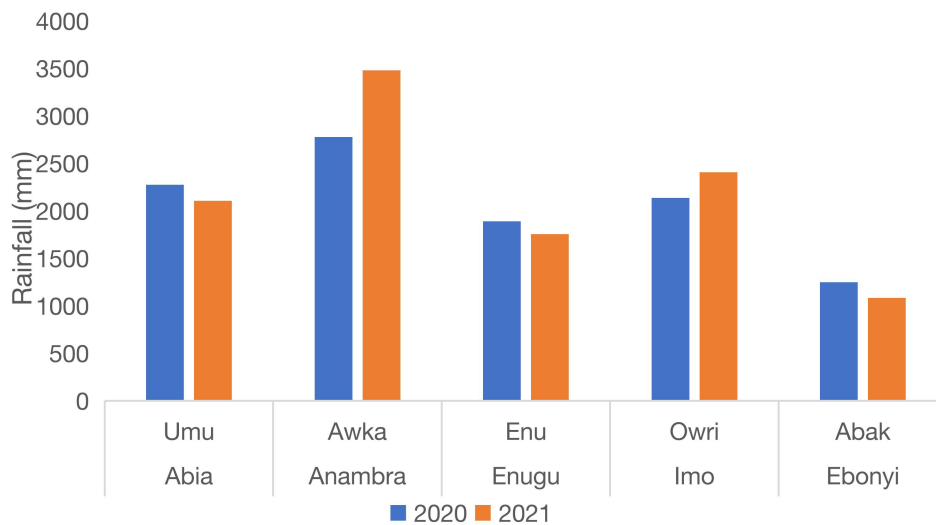


Figure 3.4: South East rainfall distribution

South West Zone

Rainfall commenced early (January 2021) in Oyo and Lagos States, and was well established in the month of March across the States. The highest rainfall was recorded in August for the 2021. The total rainfall (16550.4 mm) in 2021 was higher than of 2020 (15450.9 mm). This was attributed to the dry spell that occurred in 2020 in the zone. Ibadan, a city in Oyo State recorded the highest total rainfall of 1835.3 mm while Abeokuta, the capital of Ogun State recorded the least (1025 mm) in 2021 as indicated in Table 3. The total rainy days for the zone in 2021 (102 days) was higher than the 90 days of 2020 (Figure 3.5).

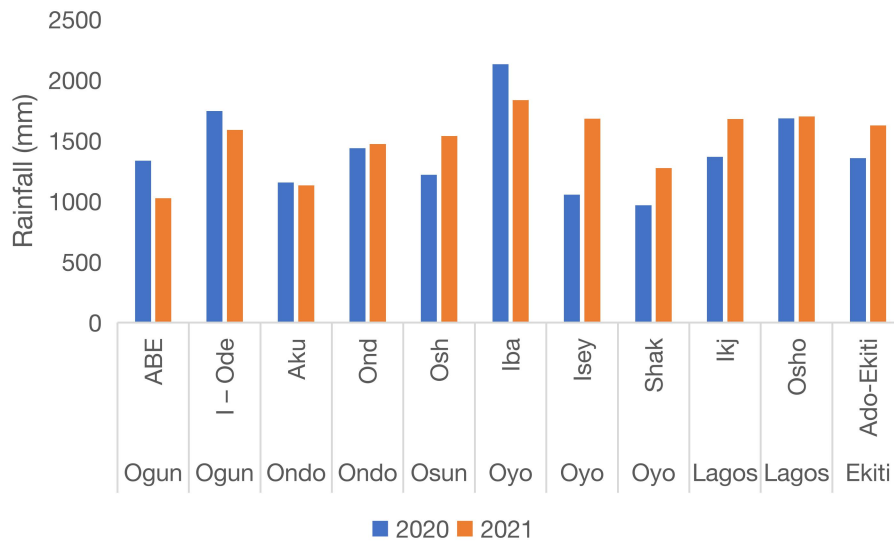


Figure 3.5: South West rainfall distribution

South South

Rainfall started by January in all the States of the zone except in Cross River and Delta States which started in February and March respectively. The rainfall was well established in March across all states in the zone. The highest amount of rainfall was recorded in the month of August, 2021 with a value of 3682.6 mm. The total amount of rainfall across the zone was about 13757.2 mm in 2021 and in 2020 a total amount of 11482 mm was recorded. The highest amount of rainfall was experienced in Warri, Delta State with a value of 4376.5 mm in 2021 and the least amount of rainfall was recorded in Ogoja of Cross-River State with a value of 1419.0 mm. The total rainy days for the zone in 2021 was 137 days and higher than that of 2020 which was 136 days.

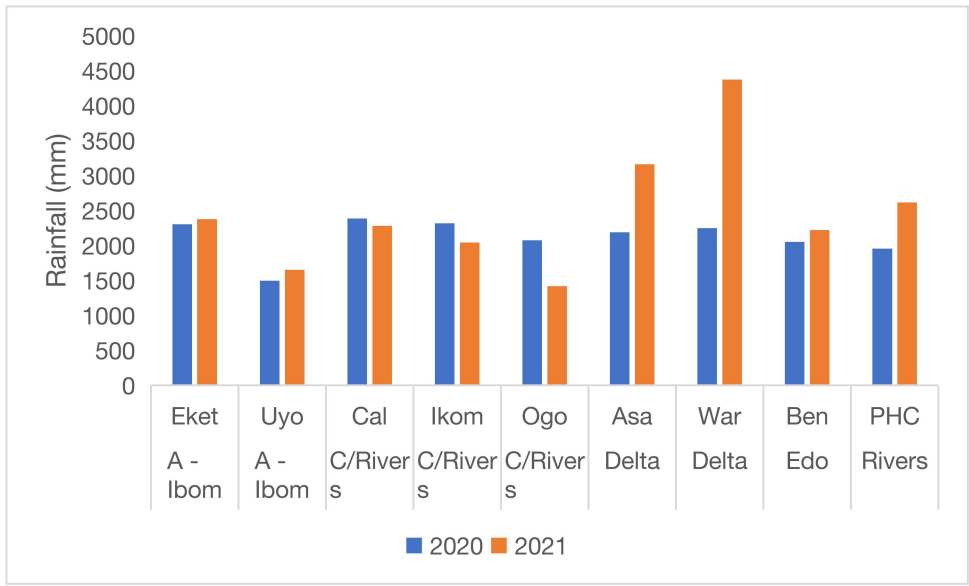


Figure 3.6: South South rainfall distribution

Table 3.12: South South Rainy days January – December

State	Station	January		February		March		April		May		June		July		August		September		October		November		December		2020	2021
		2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	Total	Total		
A – Ibom	Eket	2	7	1	2	7	15	9	9	20	18	23	17	27	16	16	21	27	21	18	21	14	18	10	6	174	171
A – Ibom	Uyo	0	2	1	1	7	6	10	5	11	9	19	14	22	15	9	21	23	16	10	14	8	14	3	0	123	117
C/Rivers	Cal	0	2	1	0	8	11	15	9	16	14	23	22	24	24	13	25	30	21	19	2	9	17	2	2	160	149
C/Rivers	Ikom	0	0	0	2	10	5	12	6	19	21	17	19	20	19	13	21	27	19	26	12	3	12	1	0	148	136
C/Rivers	Ogo	0	0	0	0	1	3	7	2	14	10	15	14	15	9	9	16	18	17	15	13	0	6	1	0	95	90
Delta	Asa	0	0	0	0	3	4	5	7	12	9	12	10	23	10	7	21	19	11	15	9	2	30	2	0	100	111
Delta	War	0	7	1	3	10	8	18	10	15	17	17	18	26	15	8	25	21	21	18	21	11	20	8	4	153	169
Edo	Ben	0	3	2	4	11	11	14	9	13	12	17	15	20	15	7	24	22	17	17	20	8	12	6	0	137	142
Rivers	PHC	1	6	0	1	4	9	13	10	14	14	15	18	26	14	7	21	25	19	13	21	14	16	4	1	136	150
Average		0.3	3.0	0.7	1.4	6.8	8.0	11.4	7.4	14.9	13.8	17.6	16.3	22.6	15.2	9.9	21.7	23.6	18.0	16.8	14.8	7.7	16.1	4.1	1.4	136.2	137.2

3.2. MAXIMUM TEMPERATURE

i) North East Zone

The mean maximum temperature across the zone in 2021 was generally higher than what was experienced in 2020 except in Nguru in Yobe State. The highest mean monthly temperature was experienced in Borno State as 36.2°C in 2021 which was higher than what was experienced in 2020 as 35.4°C. The lowest mean temperature for 2021 was experienced in Gombe State with a value of 34.7°C which was 2.2 % higher than what was experienced in 2020, that is, 32.1 °C as shown on Table 3.13 and in Figure 3.7.

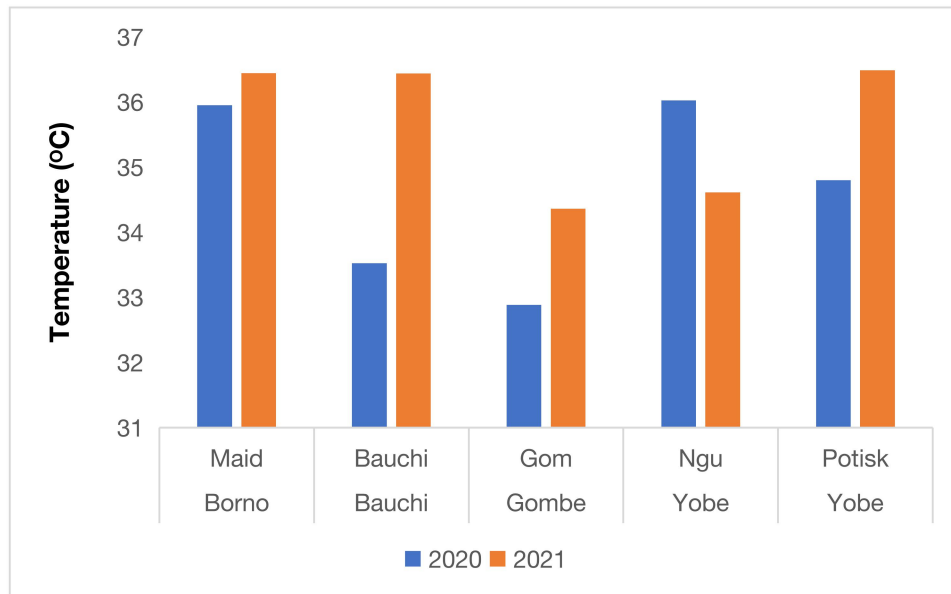


Figure 3.7 Mean maximum temperature for the North East (January – December)

ii) North-West Zone

There was increase in temperature in all the States in the zone in 2021 as against 2020. This might be due to the impact of climate change. The highest mean maximum temperature was experienced in April as 39.5 °C and lowest mean maximum temperature was experienced in August as 30.4 °C which was higher than what was experienced in 2020 as shown in Table 3.14. Sokoto State recorded the highest mean maximum temperature as 36.1 °C while Kaduna State recorded the lowest mean maximum temperature at 32.1 °C in 2021 which was higher than what was obtained in 2020 for both States at 35.1 °C and 31.6 °C, respectively (Figure 3.8).

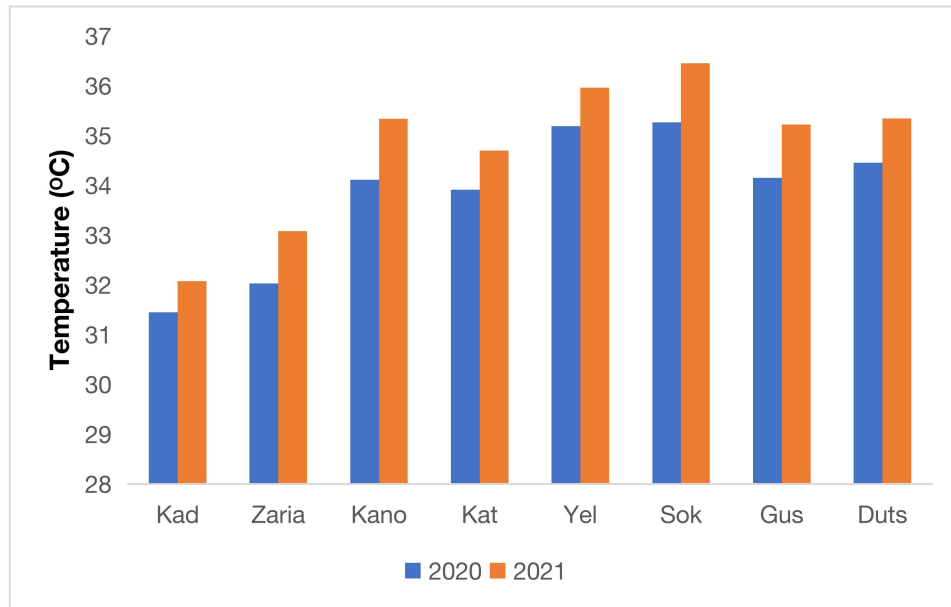


Figure 3.8 Mean Temperature for North West (January – December)

iii) North-Central Zone

There was no significant change in the temperature recorded between 2020 and 2021 in the zone as indicated in Figure 3.9. The mean maximum temperature in 2021 was 33.45 °C, a 1.13% higher than 2020 (33.07 °C). The highest mean temperature was experienced in Taraba State as 34.7 °C while the lowest mean temperature was experienced in Jos as 28.4 °C in 2021 which was slightly higher than what was experienced in 2020 and shown on Table 3.15 and in Figure 3.9.

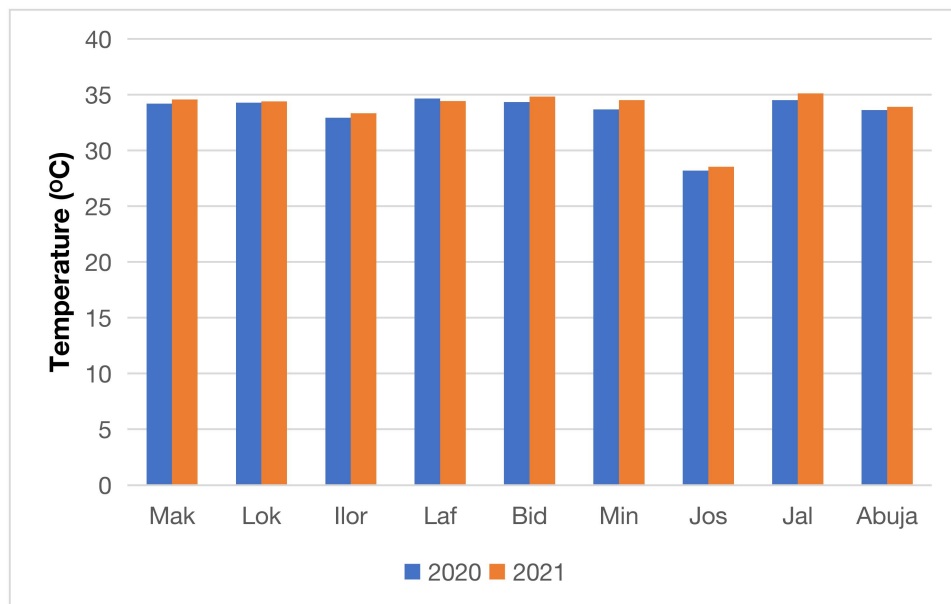


Figure 3.9: Mean Temperature for North-Central (January – December)

iv). South East Zone

The average temperature for 2021 was recorded as 33.1 °C while it was 33.2 °C in 2020. The highest mean temperature was experienced in month of February (36.8 °C) for 2021 while lowest the mean temperature was recorded in July (30.3 °C) as shown in Table 3.16. The highest mean temperature was recorded in Ebonyi (33.9 °C) in 2021 which was lower than 34.3 °C recorded in 2020 (Figure 3.10). The lowest mean temperature was recorded in Imo State at 32.3 °C for 2021 as against 32.6 °C in 2020.

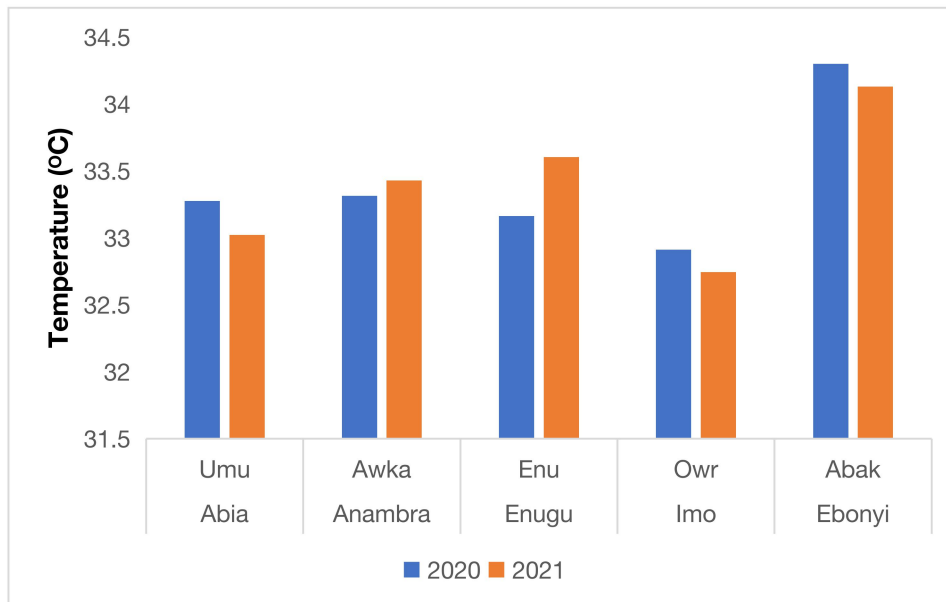


Figure 3.10 Mean Temperature for South East (January – December)

v) South West Zone

There was decrease in temperature in most of the states in this zone in 2021 as indicated on Table 3.17 and Figure 3.11. The average temperature in 2021 was 32.4 °C which was more than what was recorded in 2020 as 31.6 °C. The highest mean monthly temperature was recorded at Abeokuta, Ogun State (33.9°C) in 2021 which was the same for 2020. Oshogbo town in Osun State recorded the least mean temperature at 31.8 °C in 2021.

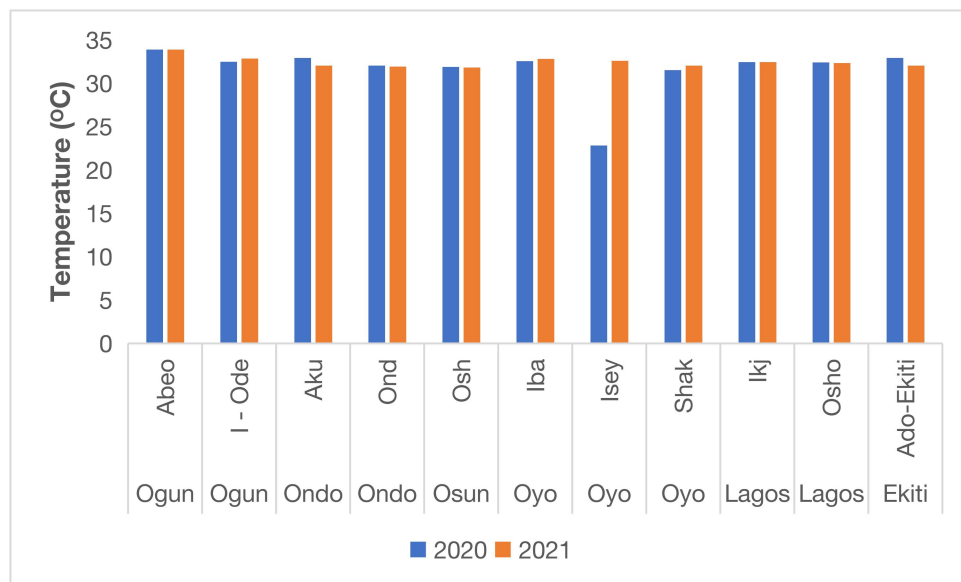


Figure 3.11 Mean Maximum Temperature for South West (January – December)

vi) South South Zone

There was no significant change in temperature between 2021 and 2020 in this zone as shown in Figure 3.12 and on Table 3.18. The average temperature in 2021 was recorded at 32.3 °C which was lower than the temperature recorded in 2020 which was 32.4 °C.

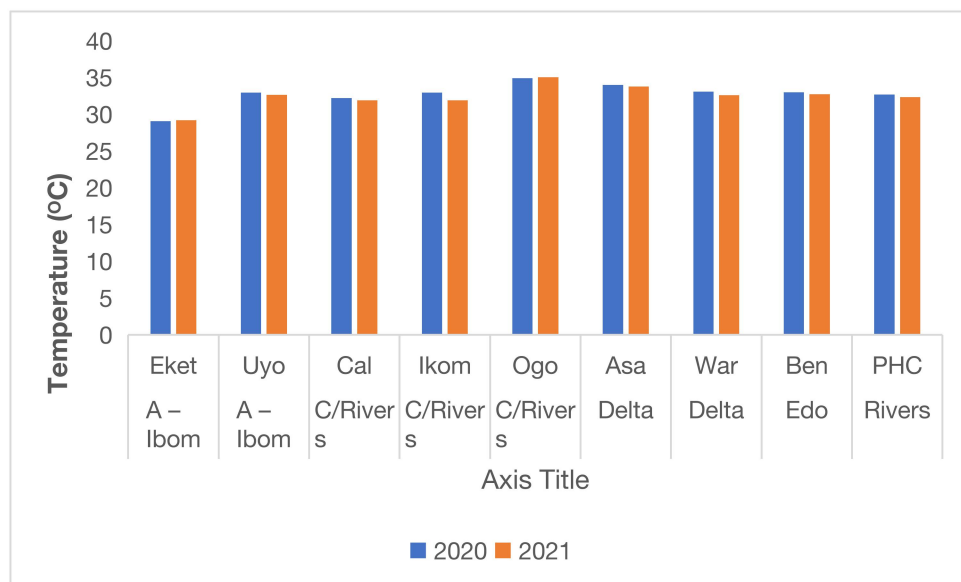


Figure 3.12 Mean Maximum Temperature for South South (January – December)

Table 3.15: North-Central Temperature (°C) January – December

		January		February		March		April		May		June		July		August		September		October		November		December		2020	2021
State	Station	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	Average	Average
Benue	Mak	34.6	37.1	37.2	38.0	38.2	37.5	36.5	37.6	33.5	33.6	31.7	31.8	30.9	30.3	31	30.7	30.4	31.0	32.0	32.8	34.5	34.3	36.4	35.0	33.9	34.1
Kogi	Lok	34.7	36.5	37.5	37.5	37.9	37.7	35.8	37.0	33.8	33.6	32.3	31.7	31.0	30.6	31.4	30.8	30.0	31.4	32.0	32.8	35.4	34.4	35.9	35.3	34.0	34.1
Kwara	Ilor	33.6	35.4	36.2	36.3	36.5	35.5	35.3	35.0	33.3	33.5	30.9	31.3	29.1	29.9	28.6	29.7	29.4	30.5	31.4	32.0	34.8	33.5	35.3	34.5	32.9	33.1
Nasarawa	Laf	35.6	37.0	37.7	37.5	38.7	37.3	37.6	37.6	34.6	34.7	32.1	31.4	30.7	29.9	30.4	30.1	29.9	31.0	32.4	32.6	36.5	34.3	36.7	36.0	34.4	34.1
Niger	Bid	34.9	36.8	37.2	37.3	38.7	39.0	37.6	38.0	34.1	34.5	31.2	32.3	30.5	30.7	30.5	30.2	30.0	31.2	32.6	33.1	35.9	35.7	36.4	35.8	34.1	34.5
Niger	Min	34.5	37.0	36.2	37.0	38.4	37.7	37.0	38.3	34.3	35.1	30.9	32.0	29.4	29.6	28.9	29.5	29.3	30.9	32.2	32.6	35.7	35.0	36.2	35.8	33.6	34.2
Plateau	Jos	27.6	29.1	29.3	29.7	32.5	31.6	31.1	32.2	29.3	29.2	27.6	27.3	24.8	24.4	23.5	24.9	35.0	26.7	37.4	28.7	27.7	29.2	29.3	28.1	29.6	28.4
Taraba	Jal	34.4	38.2	36.5	36.9	39.6	38.8	38.7	39.3		35.6	31.6	32.2	30.4	30.1	30.4	29.9	30.4	30.9	33.1	33.3	37.5	35.8	38.0	35.8	31.7	34.7
FCT	Abuja	35.4	36.9	37.3	37.0	37.5	36.6	36.3	36.9	33.5	33.8	31.3	31.4	29.1	29.2	28.7	29.6	28.8	30.7	31.7	32.2	35.3	34.1	36.0	36.0	33.4	33.7
Average		33.92	35.99	36.12	36.34	37.56	36.85	36.21	36.87	33.30	33.73	31.07	31.27	29.54	29.41	29.27	29.48	30.36	30.48	32.76	32.23	34.81	34.03	35.58	34.70	33.07	33.45

Table 3.16: South West Temperature (°C) January – December

4.0 FLOOD DAMAGE ASSESSMENT

Flood is an overflow of water that submerges land which tends to be disastrous when there is no proper drainage system. In 2021, over 35 states reported flood incidences including the FCT. The record surpassed the 27 states earlier predicted to be affected by NiMet. The flood incidences across the states were recorded with varying degrees of damage to life, crops, livestock, farmlands and infrastructures.

NORTH EAST

All states in the zone recorded flood incidence and that worsened the difficulties in the zone. Thirty-eight (38) LGAs were affected in the zones at varied severities. The states that suffered most were Bauchi and Gombe states with severity of > 25%. Sixteen (16) LGAs were flooded in Bauchi state which has caused loss of lives, many were injured and properties worth millions of naira were lost. Factors such as poor drainage systems, human action of dumping refuse in water ways and converting river routes to residential areas were reported to have contributed to the flood incidence.

NORTH WEST

Apart from Sokoto and Kaduna states, all the remaining states, that is, Jigawa, Kano, Zamfara, Katsina and Kebbi were affected by flood. While the flood impact was mild in Katsina, Zamfara and Kebbi (< 10%) it was severe in Jigawa State at (10-25%). The impact was disruptive, over 1,500 houses and farmlands, culverts and bridges were affected. In Kano State, the flood was also severe (> 25%) in 26 LGAs out of the 44 LGAs in the state. Fifty (50) people were injured while 26 were killed by the flood apart from hundreds of hectares of cultivated land that were washed away. The affected crops were groundnut, cowpea, millet, sesame, sorghum, sugarcane, rice, water melon, onion, maize and soybean.

NORTH CENTRAL

All states in this zone including the FCT were reportedly experienced flood cases with severity of damages of between 10-25% and > 25%. For this zone, crops, such as rice, maize, guinea corn and other vegetables such as pepper were affected. Also, human lives, livestock, fish farms, vehicles, buildings such as worship place, schools and houses were flooded. Many people relocate to safer areas while their investments went down the drain.

SOUTH EAST

In 2021 all the states in the zone were affected severe flooding damaged crops, livestock, buildings and roads. The flood in Anambra State was severe, incidences were recorded in and experienced between the months of July, August and September during which 7 LGAs were almost submerged. Although more LGAs were affected in Abia State, the flood damage was mild compared to the experience in Anambra State.

SOUTH WEST

In the South West, all States of the zones were affected by flood. Forty-six (46) LGAs were affected in these zones leading to the destruction of vehicles and houses. Other assets affected in

the zone were crops, livestock, and fish farms. The crops affected were cocoa, oil palm, cassava, maize, rice and okro.

SOUTH SOUTH

In the Southern part of the country where the water table is not far from the surface and much of rainfall that occurs almost throughout the year hence, they are prone to flooding. All states of the South Southzone also recorded flood cases, Bayelsa state had the experienced very severe damage (> 25%) crops, livestock, buildings and other infrastructures like roads were destroyed by the flood that occurred from June to October.

Table 14.1 Impact of Flood in the North East Zone in 2021

STATE	LGA	SEVERITY OF DAMAGES	MONTHS	COMMODITIES/INFRASTRUCTURES AFFECTED
Adamawa	Shelleng, Demsa, Yola South, Lamurde, Yola North, Girei, Maiha	10-25%	August	Houses (60 Households displaced), Farmland, Lives, livestock affected.
Bauchi	Ningi, Gamawa, Jama'are, Toro, Kirfi, Misau, Warji, Shira, Ganjuwa, Darazo, Bauchi, Alkaleri, Bogoro, Zaki, Katagum, Itas/Gadau	> 25%	July- Sept.	5 lives lost, 37 people injured, 47 culverts washed away, 27 bridges collapsed, over 6000 farmlands submerged and Crops (Rice, Sorghum, Maize and Millet) over 2000 families were affected causing a loss in property of over 1 billion naira.
Borno	Monguno, Shani, Jere	< 10%	July - August	800 shelters for IDPs, Rice farms and buildings
Gombe	Dukku, Billiri, Funakaye	> 25%	July - August	Crops (Rice and Millet) and Buildings
Yobe	Bade, Gashua, Fune, Potiskum, Geidam, Nguru, Nangere, Bursari, Fika	10-25%	July - August	Houses, Farmland, Lives, Markets, Crops and Livestock (100 homes destroyed, foodstuffs)

Table 14.2 Impact of Flood in the North-West Zone in 2021

STATE	LGA	SEVERITY OF DAMAGES	MONTHS	COMMODITIES/INFRASTRUCTURES AFFECTED
Jigawa	Guri, Gwaram, Ringim, Hadejia, Auyo, Kafin Hausa	10-25%	July - August	Destroyed over 1500 houses and farmlands, lives were also lost and bridges were as well destroyed.
Kano	Bunkure, Minjibir, Tarauni, Doguwa, Tudun Wada, Makoda, Rogo, Tofa, Kura, Rano, Madobi, Karaye, Kibiya, Garun Malam, Kumbotso, Bebeji, Gwarzo, Rimin Gado, Dawakin Tofa, Kabo, Danbatta, Minjibir, Bagwai, Bichi, Ungogo, Kunchi	> 25%	April, August – September	50 persons sustained injuries, 26 people killed and over 1000 houses destroyed in four Local Government Areas and Crops affected are Groundnut, Cowpea, Millet, Sorghum, Sesame, Sugarcane, Rice, Watermelon, Onion, Maize, Pepper, and Soybeans
Zamfara	Bungudu, Gusau, Shinkafi, Gummi	< 10%	August	Crops (Rice, Millet, Maize and Soybean) and Livestock
Katsina	Ingawa	< 10%	July	-
Kebbi	Bagudo, Jega, Birnin Kebbi	< 10%	August	Crops (Millet and Sorghum Farms)

Table 14.3 Impact of Flood in the North-Central Zone in 2021

State	LGA	Severity of Damages	Months	Commodities/Infrastructures Affected
Abuja	Bwari, AMAC, Abaji, Kwali, Gwagwalada	10-25%	July-August	Crops, Fishes and Houses
Benue	Makurdi, Ohimini, Otukpo	10-25%	August	Crops (Rice and Maize), Houses and Household items
Kwara	Edu, Patigi, Asa, Ifelodun, Moro	10-25%	August	Crops
Kogi	Ibaji, Lafiagi, Pategi, Kogi	10-25%	July-August	Crops (Rice, Maize and Tomatoes), Buildings and other properties
Nassarawa	Kokona, Keffi, Nassarawa, Toto, Lafia, Awe, Doma	> 25%	August	Crops (Rice, Maize, Pepper and Other vegetables)
Niger	Shiroro, Wushishi, Lavun, Mashegu, Kontagora	10-25%	July-August	Homes and Farmlands were destroyed (Over 200 homes and farmlands), Livestock, Lives
Plateau	Wase, Jos North	10-25%	July-August	Crops (Guinea corn, Maize and Rice), Houses and Other properties
Taraba	Jalingo	10-25%	July	Residential homes, Worship centres, vehicles, Schools, Farm crops, Livestock, Business centre (300 homes damaged, 4000 people displaced)

Table 14.4 Impact of Flood in the South East Zone in 2021

State	LGA	Severity of Damages	Month	Commodities/Infrastructures Affected
Abia	Aba North, Aba South, Arochukwu, Isialangwa South, Isialangwa North, Bende, Isiukwuato, Umuahia North, Umuahia South, Osisioma, Iwuano, Ohiafia	10-25%	August	Crops (Oil Palm, Rice, Cassava, Cocoa, Yam), Houses and Roads
Anambra	Awka North, Anambra East, Anambra West, Ayamrlum, Ihiala, Ogbaru, Onitsha North	> 25%	July – Sept.	Tuber Crops (Yam, Cassava, Potato) Staples (Maize, Rice, Groundnuts) and Vegetables
Ebonyi	Ikwo, Izzi, Abakaliki	10-25%	July - August	Crops (Rice, Yam, Cassava) and Vegetables (Cucumber)
Enugu	Nkam East, Eziagu and Udi	< 10%	July-August	Crops (Rice and Maize farms)
Imo	Oguta, Zhime mbano, Onuimo, Isilala Mbano, Ahiazu Mbaisz	10-25%	June-August	Crops, Livestock, Buildings and Roads

Table 14.5 Impact of Flood in the South West Zone in 2021

State	LGA	Severity of Damages	Months	Commodities/Infrastructures Affected
Ekiti	Ikere Ekiti and Ado Ekiti	10-25%	August	Crops, Livestock, Buildings and Roads
Lagos	Eti-Osa, Alimosho, Ikeja, Apapa, Surulere, Aboru, Agege, Ikorodu, Epe, Badagry, Ojo, Ikosi-Ejirin, Ibeju-Lekki	10-25%	May - July	Crops, Livestock (Poultry), Aquaculture, Vehicles and buildings
Ogun	Ijebu-Ode, Yewa North, Yewa South, Ijebu North, Ijebu North East, Ijebu East, Odogbolu, Abeokuta South, Abeokuta North	10-25%	July– Aug.	Crops (Maize and Cassava) and Fish
Ondo	Akoko North East, Akure South, Ondo West	10-25%	August	Vehicles and Buildings
Osun	Ayedaade, Ila, Obokun, Ife North, Ife Central, Iwo, Ayedire, Ejigbo, Ife South, Osogbo	10-25%	August	Crops (Cocoa, Oil Palm, Cassava, Maize, Rice and Okro)
Oyo	Akinyele, Egbeda, Ona Ora, Ogo Oluwa, Oriire, Oyo West, Afijio, Ogbomosho, Oluyole	< 10%	July – Aug.	Crops (Maize and Cassava)

Table 14.6 Impact of Flood in the South South Zone in 2021

State	LGA	Severity of Damages	Months	Commodities/Infrastructures Affected
Akwa Ibom	Eket	10-25%	September	Houses, Shops, Place of worship and others materials worth millions
Bayelsa	Ekelga, Kolga, Silga, Yelga, Ogbia, Nelga, Yenagoa, Southern Ijaw, Kolokuma, Opokuma	> 25%	June- Sept.	Crops (Cassava, Yam and Cocoyam), Livestock, Buildings, and other infrastructures such as roads
Delta	Isoko, Ika South	< 10%	August	Fish
Edo	Esan South East, Etsako Central, Etsako East, Etsako West, Ovia South West	> 25%	July – Aug.	Roads, buildings, and Crops (Rice, Yam and Cassava)
C/River	Calabar	< 10%	July- August	Buildings and Crops
Rivers	Obio Akpor, Port Harcourt City	< 10%	September	Flooded streets



Plate 1: Flooded Farmland in Misau, Bauhi State



Plate 2: Farmland in Jama'are, Bauchi State



Plate 3: Flooded Streets in Lagos



Plate 4: Flooded City in Agenebode, Edo State



Plate 5: Flooded Streets of Lagos



Plate 6: Flooded Farmland in Bida, Niger State



Plate 7: Flooded Street in Port Harcourt in September, 2021

5.0. USE OF IMPROVED FARM INPUTS

Twenty-nine (29) states procured and distributed seeds, six states procured seedlings, two states procured suckers, while seventeen states procured cuttings for distribution to farmers. The major seeds procured are those of Maize, Millet, Rice, Soybeans and Cowpea. Other seeds procured were include watermelon, cucumber, amaranthus, celosia, okra, tomato and pepper. the major seedlings procured are those of cocoa, cashew, oil palm, mango, guava, sweet orange, and pawpaw. More so, lemon, shaddock, soursop, tangelo and avocado were procured for cultivation. The major suckers procured and cultivated were banana and plantain while the major cuttings were cassava and potatoes. Most of the inputs were reported to be adequate and affordable. A breakdown of the procurement and distribution according to zones and states is presented below.

North East Zone

The Borno State government actively encouraged the use of improved seed working in concert with several NGOs such at IFAD, CRS, IRC etc. that operates in the state. Improved seeds of maize and rice were made available to farmers of which IFAD supplied about two thousand two hundred metric tons (2200 MT) of maize seeds during the year under reference. (Table 5.1). Records of input supplies by this organization and others in the other states of the NE region are not available.

Table 5.1: Seeds and Seedlings Procured and Distributed by States in the North East Zone

NORTH EAST ZONE							
State	Seed Input Category	Crop	Quantity Procured (MT)	Quantity Distributed (MT)	Adequacy	Affordability	Source
Borno	Seed	Maize	2200	2200	Yes	Yes	IFAD
		Rice	3000	2700	Yes	Yes	State

North Central Zone

All the six states and the FCT in the North central zone procured and distributed seeds. None of them procured seedlings while four procured and distributed cuttings. The seeds procured were maize, rice and cowpea. No report on the quantity of seeds procured and distributed in Taraba, Kwara, Niger and Nasarawa states. The seeds are adequate and affordable in all the North Central states except for Benue and the FCT, while they were not affordable in Taraba State. The sources of the seeds are the State government and others not mentioned.

The states in the north central that procured and distributed cuttings were Benue, Taraba, Niger and Nasarawa. The cuttings procured were cassava, sweet orange, and sweet potatoes. Cassava dominated the cuttings procured and distributed with Nasarawa State having the highest at 200,000 bundles. The quantity procured was not adequate and affordable in Benue State, while the quantities procured were adequate and affordable in Taraba and Niger states. The major source of the cuttings in most of the states were the state governments except for Niger State where the federal government was the source. However, the source of the cuttings in Benue and Taraba states were not reported by farmers (Table 4.2).

Table 5.2: Seeds and Seedlings Procured and Distributed by States in the North Central Zone

North Central Zone							
State	Seed Input Category	Crop	Quantity Procured (MT)	Quantity Distributed (MT)	Adequacy	Affordability	Source
BENUE	Cuttings	Cassava	25, 000 Bundles	25, 000 Bundles	No	No	-
FCT	Seed	Rice	3.5	3.5	No	No	-
		Maize	0.6	0.6	No	No	State
		Rice	1	1	No	No	State
Plateau	Seed	Maize	1.5	1.5	Yes	Yes	State
		Rice	1.5	1.5	Yes	Yes	State
Kwara	Seed	Maize	-	-	Yes	Yes	State
Taraba	Seed	Cowpea	-	-	Yes	No	
		Rice	-	-	Yes	No	State
	Cuttings	Cassava	-	-	Yes	Yes	-
Nassarawa	Seed	Maize	1	-	-	-	State
		Rice	2	-	-	-	State
	Cuttings	Cassava	200,000 Bundles	200,000 Bundles	-	-	State
Niger	Seed	Rice	-	-	Yes	Yes	FGN
	Cuttings	Orange fresh,	-	-	Yes	Yes	FGN
		Sweet potato	-	-	Yes	Yes	FGN

North West Zone

Seeds were procured in Jigawa, Bauchi, Kaduna, Kebbi and Sokoto states. Major seeds procured were maize, rice, millet, and soya beans. No state procured seedlings, while only Bauchi State procured cuttings of Napier (Elephant) grass. All the seeds and cuttings procured were distributed. However, information on input procurement and distribution were not supplied in Katsina and Kaduna states especially for maize, soybeans and rice seeds. (Table 5.3).

Table 5.3: Seeds and Seedlings Procured and Distributed by States in the North West Zone

NORTH WEST ZONE							
State	Seed Input Category	Crop	Quantity Procured (MT)	Quantity Distributed (MT)	Adequacy	Affordability	Source
Jigawa	Seed	Maize	282.02	282.02	No	Yes	State
Katsina	Seed	Maize	-	-	-	-	-
		Rice	7.5	7.5	Yes	Yes	Market
		Soybean	-	-	-	-	-
Bauchi	Seed	-	50	50	Yes	Yes	State
	Cuttings	Elephant grass	40	40	Yes	Yes	State
Kaduna	Seed	Maize	-	-	Yes	Yes	Agro-dealers
		Rice	-	-	Yes	Yes	Agro-dealers
Kebbi	Seed	Millet	12	12	No	Yes	State
		Rice	1.1	1.1	No	Yes	State
Sokoto	Seed	Maize	100	100	No	Yes	-
		Rice	50	50	No	Yes	Agro-dealers

South East Zone

All the states in the South East zone procured seeds. The major seeds procured are those of maize and rice. Imo and Abia states procured seedlings of citrus, oil palm and cocoa while Enugu, Imo, Abia, Ebonyi and Anambra procured cuttings of cassava and potatoes. All the seeds, seedlings and cuttings were adequate and affordable. Abia State procured and distributed 20,000 suckers of plantain. Apart from Enugu and Imo states that did not indicate the source of inputs procurement, all the other states sourced their seeds, seedlings, and cuttings from the state and federal government agents (Table 5.4).

Table 5.4: Seeds and Seedlings Procured and Distributed by States in the South East Zone

SOUTH EAST ZONE							
State	Input Type	Crop	Quantity Procured (MT)	Quantity Distributed (MT)	Adequacy	Affordability	Source
Enugu	Seeds	Maize	-	-	-	-	-
		Rice	-	-	-	-	-
	Cuttings	Cassava	-	-	-	-	--
		Potato	-	-	-	-	-
Imo	Seeds	Maize	2	2	Yes	Yes	-
		Cucumber	5	5	Yes	Yes	-
	Cuttings	Cassava	3000 Bundles	3000 Bundles	Yes	Yes	-
	Seedlings	Citrus	500	500	Yes	Yes	-
		Oil palm	500	500	Yes	Yes	
Abia	Seeds	Maize	10	10	Yes	Yes	State
	Cuttings	Cassava	5000 Bundles	5000 Bundles	Yes	Yes	State
	Seedlings	Oil palm	2,000,000 Bundles	2,000,000 Bundles	Yes	Yes	
	Seedlings	Cocoa	1,000,000 Bundles	1,000,000 Bundles	Yes	Yes	State
	Suckers	Plantain	20,000 Bundles	20,000 Bundles	Yes	Yes	State
Ebonyi	Seeds	Rice	2.585	2.585	Yes	Yes	State
	Cuttings	Cassava	-	-	Yes	Yes	State
		Potatoes			Yes	Yes	State
Anambra	Seed	Maize	20	20	Yes	Yes	State
		Okro	2,100 Sachets	2,000 Sachets	Yes	Yes	State
		Tomato	2,000 Sachets	2,000 Sachets	Yes	Yes	State

	CUTTINGS	Cassava	23,000 Bundles	23,000 Bundles	Yes	Yes	State
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South South Zone

Bayelsa, Rivers, Delta, Akwa-Ibom and Edo states all procured seeds, seedlings, suckers and cuttings. The major seeds procured were rice and maize. Other seeds procured in the zone included okra, watermelon, cucumber, celosia and amaranthus.

The major seedlings procured were oil palm, cocoa, cashew, sweet orange, lemon, grafted mango, shaddock, soursop, budded tangelo, avocado and dwarf pawpaw. Majority of these seedlings were procured by Edo state. Cuttings procured were cassava. Most of these inputs were reported to be adequate and affordable. Thirty thousand (30, 000) suckers each of plantain and banana were procured by Edo State. However, only 14, 405 suckers each of both were distributed. These suckers were adequate, affordable, and sourced from the state and federal government agencies (Table 5.5).

Table 5.5: Seeds and Seedlings Procured and Distributed by States in the South South Zone

SOUTH SOUTH ZONE							
State	Input Type	Crop	Quantity Procured (MT)	Quantity Distributed (MT)	Adequacy	Affordability	Source
Bayelsa	Seeds	Rice	27, 000	27,000	Yes	Yes	State
	Cuttings	Casava	71,700 bundles	71,700 bundles	Yes	Yes	State
Rivers	Seeds	Cassava	9000 bundles	9000 bundles	Yes	Yes	FGN
Delta	Seed	Maize	7.5	7.5	No	No	State
Akwa Ibom	Seed	Maize	39.72	39.72	Yes	Yes	state
		Rice	18.4	18.4	No	No	FGN
		Okra	0.3	0.3	Yes	Yes	State
	Cuttings	Cassava	74,200 bundles	74,200 bundles	Yes	Yes	State
	Seedlings	Oil palm	100, 000	100, 000	No	No	State
		Cocoa	700, 000	700, 000	No	No	State
Edo	Seeds	Maize	1,125	1,091	Yes	Yes	State
		Watermelon	10 cans	8cans	Yes	Yes	State

		Cucumber	10 cans	10cans	Yes	No	State
		Celosia	2.6kg	2.1kg	Yes	Yes	State
		Amaranthus	2.6kg	2.3kg	Yes	Yes	State
		Okra	2.5 cups	2.5 cups	Yes	Yes	State
	Cuttings	Cassava	40,500 bundles	25,000 bundles	Yes	Yes	State, FGN
	Suckers	Plantain	30,000	14,405	Yes	Yes	State, FGN
		Banana	30,000	14,405	Yes	Yes	-
	Seedlings	Cashew	50,000	50,000	No	Yes	State
		Sweet orange	50	44	No	Yes	State
		Budded grape	40	18	No	Yes	State
		Lemon	40	22	No	Yes	State
		Guava	20	17	No	Yes	State
		Grafted mango	15	12	No	Yes	State
		Shaddock	30	17	No	Yes	State
		Soursop	25	22	No	Yes	State
		Budded tangelo	25	21	No	Yes	State
		Avocado	20	16	No	Yes	State
		Dwarf pawpaw	15	--	No	Yes	State

South West Zone

All the states in the South West procured and distributed seed inputs except Oyo State. The major seeds procured were maize and rice. Other seeds procured included watermelon, tomatoes, pepper, and vegetables. The seedlings procured were coconut, oil palm, cocoa and cashew in Osun, Ekiti, and Lagos states. Cuttings of cassava were procured in Ogun, Lagos, Ekiti and Ondo States (Table 5.6).

Table 5.6: Seeds and Seedlings Procured and Distributed by States in the South West Zone

SOUTH WEST ZONE							
State	Input Type	Crop	Quantity Procured (MT)	Quantity Distributed (MT)	Adequacy	Affordability	Source
Ogun	Seeds	Maize	7.08 MT	6.96 MT	Yes	Yes	State
	Cuttings	Cassava	13,000,000	13,000,000	Yes	Yes	State
Lagos	Seeds	Maize	15.5 MT	10 TONS	Yes	Yes	State
		Rice	6.5 tons	6.5 tons	Yes	Yes	State
		Watermelon	0.01 MT	0.01 MT	Yes	Yes	State
		Tomato	0.01 MT	0.01 MT	Yes	Yes	State
		Pepper	0.01 MT	0.01 MT	Yes	Yes	State
		Vegetable	1.1 MT	1;1 MT	Yes	Yes	State
	Cuttings	Cassava	1000 bundles	1000 bundles	Yes	Yes	State
		Cassava	1000 bundles	1000 bundles	Yes	Yes	State
	Seedlings	Coconut	220,000 seedlings	220,000 seedlings	Yes	Yes	State
		Oil palm	10,000 seedlings	10,000 seedlings	Yes	Yes	State
Ekiti	Seed	Rice	9.0 MT	3.6 MT	No	No	FGN, state
		Maize	9.0 MT	2,8 MT	No	No	FGN, state
	Cuttings	Cassava	11,500	11,500	No	No	FGN
	Seedlings	Cocoa	12,000	12,000	No	Yes	State
		Cashew	10,000	10,000	No	Yes	State

Osun	Seed	Maize	4.2 MT	4.2 MT	-	Yes	Others
	Seedlings	Cocoa	125,000	125,000	-	Yes	FGN, state
Ondo	Seed	Rice	20	20	-	Yes	State
	Cuttings	Cassava	10,000 bundles	10,000 bundles	-	Yes	State

Table 5.7 shows the improved seed requirement of Adamawa, Bauchi, and Yobe States in the North East zone. The improved crop reported for most states in this zone were maize, rice, soyabean, millet, sorghum, and cassava. The level of farmer's awareness to the different varieties of the crop ranged between 40-90%.

Table 5.7: Improved seed requirement of states in the North East zone

State	Certified/Improved seeds or crops	Specify Variety name	Level of farmers' awareness in the state on variety (%)	Total Estimated requirement for the state
Adamawa	Maize	Sammaz 27, 15, 28, Admiral Seed, Oba 27 and 30	80	15,000 MT
	Rice	Faro 44,27,52,57, Nerica	90	10,000 MT
	Cassava	TMS 4 (2) 1425 TMS 30572		20000 bundles
	Soybean	TGX1448-2E TGX1835-10E TGX1465-ID	50	5,000 MT
	Millet	SOSCAT-C88 ICMV-IS89305 X Borno	40	10,000 MT
	Sorghum	KSV-8 SK-5912 Zauna Inuwa Samsorg-49	60	15,000 MT

Bauchi	Maize	Sammaite15,EVDT,	80	400MT
	Rice	Nerica, FARO 44 FARO 59	80	1000MT
	Soybean	TG 1448- 20,TG1904,Sosat	80	200MT
	Millet	Super Sosat	80	200MT
	Sorghum	CRS01, ICSV 400, SK 5912	80	300MT
Yobe	Rice	Faro 44	80	250MT
	Millet	Super Sosat	90	400MT
	Sorghum	Samsorg 45	80	450MT
Taraba	Maize	Samaz 5/15	5	
	Rice	Faro 44,15,57, CP	80	
	Cassava	419	60	
	Soybean	7Gx1448-28 1445-22 1485-10	70	
	Millet	SOSCAT-c88		
	Sorghum	SAMSORG 47,48,49	50	

Table 5.8 shows the seed requirement of improve seeds in the North Central zone as indicated by Kwara, Benue, Taraba and Niger states. The level of farmer’s awareness of the different varieties of the crop was from 5 to 80%.

Table 5.8: Improved seed requirement of states in North Central

State	Crops	Specify Variety name	Level of farmers’ awareness on the variety (%)	Total Estimated requirement for the state
Kwara	Maize	SWIM 1	50	3.2 MT
	Rice	FARO 44	80	6.75MT
	Cassava	TMC 419	80	4,547 BUNDLES
	Soybean	TG x 1448.2E	80	1.2M.T
Benue	Maize	Dent Maize	80	5.0MT
		Oba Super 1	80	5.0MT
		Oba Super 2	80	5.0MT
	Rice	Faro 44	70	6.0MT

		Faro 52	70	6.0MT
		Nerica 1 and 4	70	6.0MT
	Cassava	TMS 30572	80	50000 bundles
		TME 419	80	50000 bundles
		TME 4(2) 1425	80	50000 bundles
	Soya bean	TGX 1448-2E	60	2.0MT
		TGX 1835-102	60	2.0MT
	Millet	SOSAT-008	60	1.5MT
		SUPA SOSAT	60	1.5MT
		SAMILL-4	60	1.5MT
	Sorghum	Samsorg 14	50	1.5MT
		Samsorg 40	50	1.5MT
Niger	Maize	Sammaz	55	50MT
	Rice	Faro 44	70	45MT
	Cassava	TMS 21190	45	40MT
	Soya bean	TGX 1458-E	40	50MT
	Millet	Ex-Borno	40	40MT
	Sorghum	Short Kaura	80	80MT

Table 5.9 shows the improved seed requirement of states in the North West zone. Sokoto and Kebbi states were the only states in the North West zone that indicated their improved seed requirements. The seed requirements were maize, rice, soyabean, millet, sorghum, and cassava. The level of farmer's awareness of the different varieties of the crop was from 20 to 100%.

Table 5.9: Improved seed requirement of states in North-West

State	Crops	Specify Variety name	Level of farmers' awareness in the variety (%)	Total Estimated requirement for the state
Sokoto	Maize	Sammaz 27, 15, 28, Admiral Seed, Oba 27 and 30	80	15,000 MT
	Rice	Faro 44,27,52,57, Nerica	90	10,000 MT
	Cassava	TMS 4 (2) 1425 TMS 30572		20000 bundles
	Soybean	TGX1448-2E TGX1835-10E TGX1465-ID	50	5,000 MT
	Millet	SOSCAT-C88 ICMV-IS89305 X Borno	40	10,000 MT
	Sorghum	KSV-8 SK-5912 Zauna Inuwa Samsorg-49	60	15,000 MT
Kebbi	Maize	Sammaz 27	40	100MT
		Sammaz 15	30	100MT
		Sammaz 40	35	100MT
	Rice	Faro 44	70	200MT
		Faro 61	60	250MT
		Faro 52	70	100MT
	Millet	Super Sosat	50	200MT

	Sorghum	Samsorg 45	40	100MT
		Samsorg 47	30	100MT
		Samsorg 49	20	100MT
	Maize	Oba super 4	100	3mt
		Oba super 6	100	2mt
		SAMAZ 52	60	20tonnes
		SWAN 1 EM	80	30tonnes
	Rice	Faro 44	55	5mt
	Cassava	TMS 0505	50	200,000bundles
		TME 419	80	600,000 bundles

Table 5.10 shows the requirement for improved seeds in the South South zone. Four states in the zone indicated they required improved seeds of maize, rice, soyabean and cassava. The level of farmer's awareness to the different varieties of the crop was from 20 to 100%.

Table 5.10: Improved seed requirement of states in South south

State	Crops	Specify Variety name	Level of farmers' awareness in your state about the variety (%)	Total Estimated requirement for your state
Akwa Ibom	Maize	SWANI-Y-SR	80	1,370.2MT
	Rice	FARO 44, 56	81	60MT
	Cassava	TME 419	65	11,744,486 Bundles
		TMS 693	95	29,365,414 Bundles
Edo	Maize	LNTP	85	70.5MT
		Sammaz 52	85	70.5MT
	Rice	Faro 44	92	80MT
	Cassava	TME 419	92	7,000,000 Bundles

	Soya bean	TGX 4142	25	27MT
Cross River	Maize	Oba 98	50	700kg
		Oba 6	20	300kg
		Sammaz	70	1000kg
	Rice	Faro 44	70	2.5MT
		Faro 52	50	2MT
	Cassava	TME 419	80	1500 bundles
		TMS 01/1368	50	1000 bundles
Bayelsa	Maize	SC 651	65	2000 tonnes
	Rice	Faro 44	70	50000Kg
	Cassava	TME 419	100	200000 bundles

Table 5.11 shows the improved varieties and the level of awareness by farmers in the South East zone. The level of farmer's awareness to the different varieties of the crop was from 30-95%. The total estimated requirement for the improved seeds for Imo and Ebonyi states is shown on Table (5.11)

Table 5.11: Improved seed requirement of states in South East

State	Crops	Specify Variety name	Level of farmers' awareness in your state about the variety (%)	Total Estimated requirement for your state
Imo	Maize	Oba 6	40	4 tons
		Sammaz 52	60	7 tons
	Rice	Nerica 8	30	2 tons
		Faro 44	75	10 tons
	Cassava	Umucass	50	4000 bundles
		TME 419	80	8000 bundles
Ebonyi	Maize	Oba Super 2	90	2,000,000MT
		Oba Super 6	90	2,000,000MT
	Rice	Faro 44	95	2,500,000MT
	Cassava	Pro Vitamin A	90	250,000 bundles
		TME 419	90	250,000 bundles

Table 5.12 shows the improved seed requirement of States in South West zone. The improved seed requirements are Maize, Rice and Cassava. The level of farmer's awareness to the different varieties of the crop ranges between 25-90%.

Table 5.12: Improved seed requirement of states in South West Zone

State	Crop	Specify Variety name	Level of farmers' awareness in your state about the variety (%)	Total Estimated requirement for your state
Ondo	Maize	DMR-White	60	40mt
		SUWANI	70	50mt

		SAMA I	25	20mt
	Rice	FARO 44	90	10mt
		FARO 52	35	60mt
	Cassava	TME 419	80	80,000 bundles
		White Lion	90	100,000 bundles

Agrochemicals Procured and Distributed

Agrochemicals were procured and distributed in 14 states. The agrochemicals included pesticides, herbicides, fungicides, and growth enhancer. A significant quantity of the agrochemicals procured was distributed except for the FCT that was yet to distribute agrochemical inputs as at the time these data were being collected. Many states, especially in the South East zone did not report the quantity of agrochemicals procured and distributed. Most of the agrochemicals were reported to be adequate and affordable where farmer reported that they were procured and distributed. Major sources of the agrochemicals were the state and federal government agents/agencies.

North East Zone

Only Bauchi and Borno states procured and distributed agrochemicals in the North East zone. The class of agrochemicals procured by Bauchi state was not indicated while Borno state procured herbicides and pesticides. The names of the agrochemicals were not indicated by both states. Bauchi state procured 2800 litres while Borno State procured 1,000 liters of pesticides and herbicides. Bauchi did not indicate the quantity distributed while Borno distributed 700 litres. The agrochemicals were reported to be adequate and affordable in both states. The agrochemicals were sourced from state government agencies (Table 5.13).

Table 5.13 Agrochemicals Procured and Distributed by States in the North East Zone

State	Agrochemical Class	Quantity Procured (litres)	Quantity Distributed (litres)	Adequacy	Affordability	Source
Bauchi	Herbicides/pesticides	2,800	2800	Yes	Yes	State
Borno	Herbicides/pesticides	1,000	700	Yes	Yes	State

North Central Zone

Only the FCT procured agrochemicals in the North central zone. It procured 3,125 litres of paraquat and 690 litres of Propercare. However, these agrochemicals have not been distributed as at the time data were collected in the state. Thus, information on adequacy and affordability could not be provided by the respondents (Table 5.14).

Table 5.14: Agrochemicals Procured and Distributed by States in the North Central Zone

NORTH CENTRAL ZONE							
State	Agrochemical Class	Name	Quantity Procured	Quantity Distributed	Adequacy	Affordability	Source
FCT	Pesticide	Paraquat	3,125	Not yet distributed	-	-	State
	Herbicide	Propercare	690	Not yet distributed	-	-	State

Jigawa and Katsina states were the two states that procured and distributed agrochemicals in the North West zone. Jigawa procured pesticides and herbicides however, there was no report of the type of chemicals procured in Katsina. Jigawa procured and distributed 4,000 litres of pesticides. It procured 8,000 litres and 1,000 litres of herbicides and fungicides respectively but there was no information on the quantity distributed. Report from Jigawa showed that the agrochemicals procured were not adequate, the story was different in Katsina where farmers reported that the agrochemicals procured were adequate. Agrochemicals procured in both states were said to be affordable. The major sources of the agrochemicals were state agencies (Table 5.15).

Table 5.15: Agrochemicals Procured and Distributed by States in the North West Zone

State	Agrochemical Class	Quantity Procured (litres)	Quantity Distributed (litres)	Adequacy	Affordability	Source
JIGAWA	Pesticides	4000	4000	No	No	State
	Herbicide	8000	-	-	-	State
	Fungicides	1000	-	-	-	State
KATSINA	-	1500	1500	Yes	No	Others

South East Zone

Insecticides, herbicides, and fungicides were procured in Imo State. All the quantities of insecticides and herbicides procured by Imo State were distributed. There was however no records

of the quantities of agrochemicals procured and distributed in the other states in this zone (Table 5.16).

Table 5.16: Agrochemicals Procured and Distributed by States in the South East Zone

State	Name	Quantity Procured (litres)	Quantity Distributed (litres)	Adequacy	Affordability	Source
IMO	Insecticides	100	100	No	No	State
	Herbicides	250	250	No	No	State

South South Zone

Agrochemicals were procured and distributed by three states in the South South zone. The states are Edo, Delta, and Akwa-Ibom States. The agrochemicals made available include pesticides, herbicides and growth enhancers. All the agrochemicals procured were distributed. They were mostly not adequate and the prices were high. The detail of the agrochemicals distributed in the zone are presented on Table 5.17.

Table 5.17: Agrochemicals Procured and Distributed by States in the South South Zone

State	Input Type	Quantity Procured (litres)	Quantity Distributed (litres)	Adequacy	Affordability	Source(s)
Edo	Pesticides/ herbicides	1494	1494	No	No	State
Delta	Herbicides	8,644 l	8,644	No	No	State
Akwa-Ibom	Pesticides	2444	2444	No	No	FGN & State
	Herbicides	4458	4458	No	No	FGN & State
	Sprayer	936	936	No	No	FGN & State
	Growth enhancer	1104	1104	Yes	No	FGN

South West Zone

Ogun, Lagos and Ekiti states were the states in the South West zone that procured and distributed agrochemicals in 2021. The names of the agrochemicals were not indicated in Ogun and Ekiti states while Lagos procured Weed-Off (herbicide) and Force-Up (pesticide). The agrochemicals procured were mostly pesticides, herbicides and fungicides.

Apart from Ekiti state, all the agrochemicals procured were distributed and were reported to be adequate. The sources of the agrochemicals procured were state and federal government agencies (Table 5. 18).

Table 5.18: Agrochemicals Procured and Distributed by States in the South West Zone

South -West Zone							
State	Name	Input Type	Quantity Procured (litres)	Quantity Distributed (litres)	Adequacy	Affordability	Source
OGUN		Pesticides	1337	1132	No	No	State
		Herbicides					
			3,370.15	3, 132	No	No	State
LAGOS	Weed off	Herbicide	5500	5500	No	No	State
	Force up	Pesticide	2500	2500	No	No	State
EKITI		Herbicides	18,096	10,480	No	No	FGN/State
		Insecticides	2,000	2,000	No	No	State
		Fungicides	2,000	2,000	No	No	State

Fertilizer Situation

Fertilizers were procured and distributed in 19 States and the FCT. Most states procured the NPK and urea fertilizers for farmers. A few also procured and distributed SSP fertilizer. Overall, the federal and state governments as well as some NGOs distributed various quantities of fertilizers to farmers in Nigeria in 2021.

Table 5.19 shows the quantity and types of fertilizer procured and distributed by the states in the North Central zone in 2021. The FCT, Niger and Nasarawa were the only states that procured and distributed fertilizer in this zone in 2021. The type of fertilizer procured by FCT were NPK and Urea. Nasarawa and Niger states procured NPK. The quantity procured and distributed are as shown on Table 5.19.

Table 5.19: Fertilizer situation by states in the North central zone

State	Fertilizer Type	Quantity Procured (MT)	Quantity Distributed (MT)	Source
FCT	NPK	150000	113000	FGN
	Urea	60,000	53000	FGN
Niger	NPK	15000	15000	Agro dealers
Nasarawa	NPK	1440	1440	State Govt.

North West Zone

In the Zone. Kebbi, Jigawa, Katsina, Kano, Sokoto and Kaduna reported the procurement and distribution of fertilizer. The fertilizers procured and distributed were NPK, Urea and SSP. Kebbi State has the highest number (NPK 5670, Urea 7000, and SSP 3000MT) of fertilizer procured followed by Jigawa State. The procurement was made by the state government.

Table 5.20: Fertilizer situation by states in the North West zone

State	Fertilizer Type	Quantity Procured (MT)	Quantity Distributed (MT)	Source
Kebbi	NPK	5670	5670	State Govt.
	Urea	7000	7000	State Govt.
	SSP	3000	3000	State Govt.
Jigawa	NPK	10000	10000	State Govt.
	Urea	1000	1000	State Govt.
Katsina	NPK	30	30	State Govt.
	Urea	15	15	State Govt.
Kano	NPK	513	513	State Govt.
	Urea	253	253	State Govt.
Kaduna	NPK	6605	6605	State Govt.
Sokoto	NPK	15000		State Govt.
	Urea	8000		State Govt.

North East Zone

Table 5.21 shows the fertilizer situation in the North East Zone. Bauchi, Yobe, Adamawa and Taraba states procured 18000, 900, 3090 and 9900MT of NPK respectively. Bauchi State distributed 14500MT while Adamawa State distributed 2190MT. Bauchi State recorded the highest (18000MT) quantity of fertilizer procured and distributed in the North East Zone in 2021.

Table 5.21: Fertilizer situation by states in the North East zone

State	Fertilizer Type	Quantity Procured (MT)	Quantity Distributed (MT)	Source
Bauchi	NPK	18000	14500	State Govt.
Yobe	NPK	900	900	State Govt.
Adamawa	NPK	3090	2190	State Govt.
Taraba	NPK	9900	9900	State Govt.

South West Zone

Table 5.22 shows the fertilizer situation in the South West zone. Ogun State procured 33.75MT of NPK and 5.8MT of urea which was all distributed. Ekiti State procured 288.5MT of NPK which as at the time of the survey only 24MT had been distributed.

Table 5.22: Fertilizer situation by states in the South West zone

State	Fertilizer Type	Quantity Procured (MT)	Quantity Distributed (MT)	Source
Ogun	NPK	33.75	33.75	State Govt.
	Urea	5.8	5.8	State Govt.
Ekiti	NPK	288.5	24	FGN

South East Zone

Anambra, Ebonyi and Abia are the states that procured and distributed fertilizer in the South East zone as shown in Table 5.23. Anambra, Ebonyi and Abia States procured 90, 250000 and 1000MT of NPK and all were distributed. Ebonyi State procured and distributed 12500MT of urea. The fertilizers were all procured by the state government.

Table 5.23: Fertilizer situation by states in the South East zone

State	Fertilizer Type	Quantity Procured (MT)	Quantity Distributed (MT)	Number of farm families benefited	Source
Anambra	NPK	90	90		State Govt.
	Urea	15	15		State Govt.
Ebonyi	NPK	250000	250000		State Govt.
	Urea	125000	125000		State Govt.
Abia	NPK	1000	1000		State Govt.

South South Zone

Table 5.24 shows the fertilizer situation by states in the South South zone. Bayelsa States procured and distributed 5736MT of NPK and 3600MT of urea, while Edo State distributed 11.4 MT of NPK, 0.6MT of urea, and 0.34MT of SSP.

Table 5.24: Fertilizer situation by states in the South South zone

State	Fertilizer Type	Quantity Procured (MT)	Quantity Distributed (MT)	Source
Edo	NPK	11.4	11.4	State Govt.
	Urea	0.6	0.6	State Govt.
	SSP	0.6	0.34	State Govt.
Bayelsa	NPK	5736	5736	State Govt.
	Urea	3600	3600	State Govt.

Farm Equipment Procured and Distributed

The level of farm equipment procurement and distribution was low, only 5 states (Kwara, Kogi, Anambra, Lagos and Bayelsa) procured and distributed farm equipment in 2021. The equipment procured and distributed were tractor, draught implements and agro-processing machines.

North Central Zone

In the North central Zone, Kwara and Kogi States procured and distributed of agro processing equipment to farmers. The equipment procured were presser, grinder, dryer, miller, crusher, and mixer. The quantity of farm equipment procured and distributed are as shown on Table 4.25.

Table 5.25: Farm equipment procured and distributed by states in the North Central zone

State	Farm Equipment Type	Equipment Name	Quantity Procured	Quantity Distributed	Number of Beneficiaries
Kwara	Presser		16	16	-
	Grinder		16	16	-
	Dryer		16	16	-
Kogi	Miller		5	5	5
	Presser		10	10	10
	Grinder		5	5	5
	Crusher		5	5	5
	Mixer		5	5	5
	Dryer		5	5	5

South East Zone

Table 5.26 shows only Anambra State reported procurement of Tractors in the South East Zone. The quantity of Belarus procured was 20 while 10 MF were procured.

Table 5.26: Farm equipment procured and distributed by states in the South East zone

State	Farm Equipment Type	Equipment Name	Quantity Procured	Quantity Distributed
Anambra	Tractor	MF	10	10
		Manhindra	2	2
		Eitcher	2	2
		Belarus	20	20
		Case	2	2

South West Zone

Information on Table 5.27 shows that Lagos State procured 10 Mahindra tractors, and tractor implements. The agro processing equipment procured and distributed were 30 destoner and 50 smoking kiln.

Table 5.27: Farm equipment procured and distributed by states in the South West zone

State	Farm Equipment Type	Equipment Name	Quantity Procured	Quantity Distributed	Number of Beneficiaries
Lagos	Tractor	Mahindra	10	10	10
	Tractor implements	Plough	10	10	10
		Harrow	10	10	5
		Ridger	5	5	10
		Planter	10	10	10
		Sprayer	10	10	10
	Agro-processing equipment	Scale	100	100	30
		Destoner	30	30	30
		Smoking Kiln	50	50	50

South South Zone

Table 5.28 shows the Farm equipment procured and distributed by states in the South South zone. Bayelsa State reported procurement of 5 SWARAZ tractors and 5 Bob tractors. Sprayers were also procured and distributed; 2334 equipment were procured and distributed in this zone in 2021.

Table 5.28: Farm equipment procured and distributed by states in the South South zone

State	Equipment Type	Equipment Name	Quantity Procured	Quantity Distributed	Adequacy Yes/No	Number of Beneficiaries
Bayelsa	Tractor	SWARAZ 75HP	5	-	-	-
		Bob Tractor SL 1004	5	-	-	-
	Sprayer	Sprayer	2334	2334	Yes	2334

6.0. CROP PESTS AND DISEASES

Incidences of Pests and Diseases on Tuber Crops

Incidence of pests and diseases were reported on cassava, yam, plantain, cocoyam, sweet potato, and potato in twelve (12) states in 2021.

Cassava was affected by cassava blight, cassava mosaic Viru, cercosporal white and brown spots, cassava anthracnose disease, root rot and CMVD. The effects of some of these pests and diseases were heavy in Ogun State but moderate in Bayelsa, Benue, Abia, Anambra, Ondo, Osun, and Lagos states and light in Ebonyi and Ekiti states. The anticipated yield loss varied between 5% and 30%. Spraying with pesticides, good agricultural practices such as early harvesting and the use of insecticides, soil treatment, the use of improved varieties was one of the control measures applied in the affected states. Meanwhile, there was no report on the control measures in Ogun State.

Yam was affected by nematodes, mealy bug, yam beetle and dry rot in Ebonyi, Benue, Anambra, Abia and Ekiti states. The severity was light in Ekiti but moderate in other states. There was some nematode attack in Ekiti State with predicted effect of yield loss of 5% and 30%. Good agricultural practices and the use of chemicals (Apron plus, Carbofuran) were the control measures adopted in the affected states.

In Akwa Ibom State, the incidence of sigatoka on plantain and banana was prevalent causing about 9% yield losses.

Cocoyam was affected by fungal disease in Enugu State while in Ekiti State, root rot and nematodes attacks were rerecorded. The effect of fungi attack was moderate in Enugu State and Ekiti State resulting to a yield loss of 20% and light (5%) in Ekiti state. Dry season cultivation was the management practice use to control fungal disease in Enugu State while fungicides (Benomyl) was applied to control root rot in Ekiti State.

Sweet potatoes and potatoes were affected by weevil and blight in Anambra and Plateau states. The severity of the attack in both states was moderate though resulting to yield loss of 20% and 15% respectively in Anambra and Plateau states (Table 6.1).

Table 6.1: Incidences of Pests and Diseases on Cereals and Legumes

Crops	Pests/Diseases Hazard	States	Severity	Estimated Yield loss (%)	Management Practices
Cassava	Cassava Bacterial Blight	Ogun	Heavy	30	
	Cassava Mosaic Virus Disease	Ogun	Heavy	30	
	Cercosporal white and brown spots	Ogun	Heavy	30	
	Cassava Anthracnose Disease	Ogun	Light	9	
	Brown leaf spot	Bayelsa	Moderate	15	Spraying with pesticides

	Cassava Mosaic Virus Disease	Ebonyi	light	8	Good agricultural practices
	Root rot	Ebonyi	light	9	Good agricultural practices
	Roots rot	Benue	Moderate	25	Early harvesting
	Cassava Mosaic Virus Disease	Anambra	Moderate	15	Use of insecticides
	CMVD	Abia	moderate	30	Cultural practice
	Blight	Abia	moderate	30	Cultural practice
	Aphid	Abia	moderate	30	Cultural practice
	Cassava Mosaic Virus Disease	Ekiti	Light	5	Soil treatment
	Leaf blight	Ekiti	Light	5	Use of Improved varieties
	Tuber rot	Lagos	Moderate	20	Evacuation
	Cassava Mosaic Virus Disease	Ondo	Moderate	10	Use of resistant varieties
	Tuber rot	Ondo	Moderate	30	Use well drained soil
	Root rot	Osun	Moderate	5	Early Harvesting
Yam	Nematodes	Ebonyi	Light	8	Good agricultural practices
	Mealy bug	Ebonyi	Moderate	15	Good agricultural practices
	Beetle	Benue	Moderate	20	Use of chemicals
	Nematode	Anambra	Moderate	9	Use of insecticides and improved cultural practices
	Yam beetle	Abia	moderate	30	
	Yam beetle	Ekiti	Light	5	Use of chemical (Apron plus, Carbofuran)

	Nematode	Ekiti	Light	5	Use of chemical (Apron plus,)
	Dry rot	Ekiti	Light	5	Use of chemical (Apron plus,)
Plantain	Sigatoka	Akwa Ibom	Light	9	Use of improved cultivars
Cocoyam	Fungal disease	Enugu	Moderate	20	Dry season cultivation
	Root rot	Ekiti	Light	5%	Use of fungicides (Benomyl)
	Nematode	Ekiti	Light	5%	Use of fungicides (Benomyl)
Sweet potato	Weevil	Anambra	Moderate	20	Early harvesting
Potato	Blight	Plateau	Moderate	15	Early planting and use of resistant varieties

Incidences of Pests and Diseases on Cereals and Legumes

Table 6.2 shows the incidence of pest and diseases in cereals and legumes crops. The common pests and diseases that affected cereals and legumes were Army worm, leaf blight, stem borers, smut, leaf roll back, rot, rodents, rice blight, blast, birds, insects, weevils, rice wilt, mut blight, striga, smut, frog-eye, whitefly, pod borer and aphids.

Maize was affected by fall Army worm in 23 States and the FCT. States with heavy infestation of Fall Army Worm (FAW) occurred were Ogun, Taraba, Cross River, Akwa Ibom, Abia, Lagos, Osun and the FCT. The estimated loss although varied between states, was from 40 to 65%. Most of the farmers applied insecticides to control the FAW adopting chemicals such as Caterpillar force, Cypermethrin, Lamza force in combination with cultural controls by use of neem tree extract, and Good Agricultural Practices (GAP). It may be noted that high variability in the level of control effectiveness were recorded because of weak technical capacity of the farmers in the use of the chemicals. A huge number of farmers could not effectively control the FAW owing to wrong timing of initiation of control and the lack of access to quality insecticides. Capacity development for increased competency in the control of FAW is expedient.

Rice was attacked differentially across states by blast, Blight, Stem borers, Birds, Insects, Rodents, Weevils, and Root rot. The States that reported slight to moderate disease incidences are Jigawa, Bayelsa, Taraba, Kano, Zamfara, Ebonyi, Benue, Edo, Cross River, Sokoto, Bauchi, Anambra, Abia, Nasarawa, Ondo, and Gombe. The estimated yield loss reported by these states vary between 20 and 60%. The control measures employed against the attack were use of resistance varieties, use of pesticides, integrated farm management, scare crowing (making scaring noise to drive away birds) and good agricultural practices (GAP).

In sorghum are striga, smut and stem borer attacks occurred throughout the sorghum belt especially in Taraba, Zamfara, Yobe, Benue and Bauchi states but with moderate damages. Many states did not report the attack of pests and diseases on soybean except in Zamfara and Ekiti States where the attack by frog eye disease induced less than 10% yield losses in Ekiti State, and pod borers caused as much as 15% yield depression in Zamfara State. The farmers in these states adopted the plating of disease resistant varieties of soybean and frequently used insecticides to control pod borers. That could be the reason for low damage recorded in these states in 2021.

Millet was damaged slightly by stem borer in Bauchi and Gombe states causing an estimated yield loss of 9 and 19%, respectively. Use of chemical insecticides was the control measures adopted by farmers. The pests and diseases that affected cowpea were Aphids and pod borers especially in Yobe, Benue, Kogi, Bauchi, Katsina and Ondo states causing yield reductions estimated at 9 to 60%. During the 2021 season, SAMPEA 20T (Pod Borer Resistant (PBR) cowpeas variety released by the Institute for Agricultural Research (IAR) in collaboration with the Africa Agricultural Technology Foundation (AATF) was introduced for the first time by seed companies to farmers in Nigeria. The performance of the PBR is being monitored although some favorable reports have been recorded. The new cowpea variety, when widely adopted is likely to reduce the use of insecticide in cowpea production in Nigeria.

Groundnut was affected by rosette and beetle (on farm and in storage) in Benue and Nasarawa states. The damage was light in Nasarawa State but heavy in Benue State. The estimated yield loss was about 8% for Nasarawa State and 50% for Benue States. Use of chemicals and early planting were the control measures applied by farmers in the two states.

Table 6.3: Incidences of Pests and Diseases on Cereals and Legumes

Crops	Pests/Diseases Hazard	States	Severity	Estimated Yield loss (%)	Management Practices
Maize	Army worm	Ogun	Heavy	50	Use of Amligo, Caterpillar force
	Leaf blight	Bayelsa	light	8	
	Army worm	Taraba	Heavy	40	Spraying with cypermethrin
	Fall army worm	Kano	moderate	20	Integrated Pest management
	Army worm	Delta	Light	9	Spraying with insecticides
	Fall Army worm	Zamfara	moderate	15	Use of neem oil extract and spraying with insecticides
	Fall army worm	Niger	Moderate	20	Spraying with chemicals
	Stem borers	Ebonyi	Moderate	20	Use of pesticides
	Corn smut	Ebonyi	Moderate	20	Use of pesticides
	Army worm	Kwara	Moderate	15	Use of Caterpillar force, Lamzer force and use of neem tree extract
	Army worm	Benue	Moderate	25	Use of chemicals
	Army worm	Edo	Moderate	10	
	Army worm	Cross River	Heavy	40	Use of insecticides and GAP
	Stem Borer	Cross River	Moderate	25	Use of insecticides and GAP
	Army worm	Akwa Ibom	Heavy	60	Use of in insecticides
	Fall Army worm	FCT	Heavy	60	Use of insecticides and improved pest management
	Army worm	Enugu	Moderate	20	
	Stem borer	Kogi	Moderate	9	Use of insecticides (Furadan)
	Fall army worm	Bauchi	Moderate	20	Use of insecticides e.g. sharp shooter, magic force etc.
	Fall army worm	Katsina	Moderate	29	Use of chemicals and improved pest management
	Army worm	Anambra	Heavy	30	Use of insecticides
	Fall army worm	Abia	Heavy	60	Use of pesticides
	Fall Army Worm	Ekiti	Heavy	25	Bio-Pesticides (Ambligo/Amy force)
Stem borer	Kogi	Moderate	20	Use of Insecticides e.g.,	

					Furadan
	Stem borer	Imo	Moderate	20	Use of pesticides
	Army worm	Imo	Moderate	20	Use of pesticides
	Army worm	Kaduna	Light	8	Good cultural practices
	Army worm	Lagos	Heavy	50	Good Agricultural Practice (GAP) and use of insecticides
	Leaf roll Back	Lagos	Moderate	20	Good Agricultural practice
	Fall army warms	Nasarawa	moderate	15	Application of insecticide
	Army worm	Oyo	Moderate	20	Use of insecticides
	Fall army warm	Plateau	Moderate	20	Use of insecticides
	Fall Army Worm	Ondo	Moderate	20	Use worm force
	Stem Borer	Gombe	Moderate	5	Spraying of Chemicals
	Fall Armyworm	Osun	Heavy	65	Application of insecticides
	Rot	Osun	Moderate	5	Use of Fungicide
	Rodent	Osun	Moderate	4	Trap setting
Rice	Rice blight	Jigawa	moderate	20	Spraying with pesticides
	Rice blast	Bayelsa	moderate	15	Spraying with pesticides
	Blight	Taraba	moderate	30	Planting of resistant varieties
	Rice blast	Kano	moderate	25	Integrated Pest management
	Rice blast	Zamfara	moderate	20	Use of fungicides
	Stem borers	Ebonyi	heavy	40	Use of pesticides
	Rice blast	Ebonyi	Moderate	10	Use of pesticides
	Birds	Benue	Moderate	20	Birds scaring
	Rice blast	Edo	Moderate	2.5	
	Stem borer	Cross River	Moderate	20	Early planting and use of improved varieties
	Birds	Sokoto	Moderate	20	Use of nests
	Rice blast	Bauchi	Moderate	25	Use of fungicides (Rodomil Gold)
	Insects	Anambra	Moderate	8	Use of insecticides
	Birds	Anambra	Moderate	8	
	Rodents	Anambra	Moderate	8	Use of insecticides

	Weevils	Abia	Heavy	60	Use of pesticides
	Stem borer	Abia	moderate	30	Use of insecticides
	Birds	Abia	moderate	30	Scare screw
	Rice blast	Nasarawa	moderate	20	Irrigation during drought
	Root rot	Nasarawa	moderate	10	Use of insecticide
	Birds Attack	Ondo	Heavy	40	Scare crows
	Rice Wilt	Gombe	Moderate	20	Spraying with pesticides
Sorghum	Moth blight	Taraba	light	9	Planting of resistant varieties
	Striga	Zamfara	light	9	Hand weeding
	Smut	Yobe	Moderate	20	Use of chemicals
	Striga	Benue	Light	9	Crop rotation
	Stem borer	Bauchi	Light	9	Use of chemicals
Soybean	Frog-eye	Zamfara	Light	9	Uprooting the affected ones
	Whitefly	Ekiti	Moderate	15	Use of insecticides
	Pod borer	Ekiti	Moderate	15	Use of Resistant variety/Insecticides
Millet	Stem borer	Yobe	Moderate	19	Use of chemicals
	Stem borer	Bauchi	Light	9	Use of chemicals
Cowpea	Aphids	Yobe	Moderate	20	Use of chemicals
	Aphids	Benue	Light	9	Use of chemicals
	Leaf pod borers	Kogi	Moderate	25	Use of insecticides
	Aphids	Bauchi	Light	8	Use of insecticides
	Pod Borer	Katsina	Moderate	20	Use of chemicals
	Pod borer	Kogi	Heavy	60	Use of Insecticide
	Pod borer	Ondo	Moderate	30	Use of insecticides
Groundnuts	Stored beetle	Benue	Heavy	50	Use of chemicals
	G/nut Rossete bug	Nasarawa	light	8	Early planting

Incidences of Pest and Disease on Fruits and Vegetables

Incidences of pests and diseases were reported on tomatoes and pepper. Tomatoes production was affected in Ogun, Kano, Edo, Akwa-Ibom, Ekiti, Oyo and Osun states. The effect of *Tuta absoluta* was moderate in Kano State but light in Akwa Ibom State. The estimated yield loss were between 2% and 30%. Apart from Ogun and Osun states, the control measures in use in the affected states include integrated pest management, the use of neem extract as repellent, the use of resistant seed variety, the use of insecticides and crop rotation. While aphids severely

damaged pepper plantations in Gombe State, fruit rot was slightly prevalent in Osun State. (Table 6.4)

Table 6.4: Incidences of Pests and Diseases on fruits and vegetables

Crops	Pests/Diseases Hazard	States	Severity	Estimated Yield loss (%)	Management Practices
Tomato	Bacterial wilt	Ogun	moderate	10	
	Damping off	Ogun	moderate	10	
	Blossom end rot	Ogun	moderate	10	
	Worm infestation on fruit	Ogun	moderate	10	
	White flies' infestation	Ogun	moderate	10	
	Root Knot nematode infestation	Ogun	moderate	10	
	White flies	Kano	Heavy	30	Integrated Pest management
	Tuta Absoluta	Kano	moderate	20	Integrated Pest management
	Tomato wilt	Edo	Heavy	80	
	Tuta Absoluta	Akwa-Ibom	Light	9	Use of neem extract
	Tomato wilt	Ekiti	Moderate	15	Use of Resistant variety/Insecticides
	Nematode	Ekiti	Moderate	15	Soil treatment
	Whitefly	Ekiti	Moderate	15	Use of insecticides
	Tomato Wilt	Oyo	Moderate	20	Crop rotation
Wilt	Osun	Moderate	2		
Pepper	Aphid	Gombe	Heavy	25	Spraying with chemicals
	Fruit rot	Osun	Moderate	15	Use of Nematicides

Incidences of Pests and Diseases on Tree Crops

Incidences of pests and diseases attacks were reported on cocoa and guava. Cocoa black pod, and mirids affected cocoa farms in Abia and Osun states while moth affected guava in Akwa Ibom State. The effect of cocoa black pod attack in Abia State was moderate and likely to cause about 20% yield loss this season. On the other hand, black pod and mirids on cocoa varied from light to heavy severity respectively in Osun state and may cause about 6% and 60% yield loss

respectively. Application of fungicides were some of the control measures adopted by farmers (Table 6.5).

Table 6.5: Incidences of Pests and Diseases on Tree crops

Crops	Pests/Diseases Hazard	States	Severity	Estimated Yield loss (%)	Management Practices
Cocoa	Cocoa black pod	Abia	moderate	20	Use chemicals
	Black pod	Osun	Light	6	Application of fungicides
	Mirids	Osun	Heavy	60	Use of Insecticides
Guava	Moth	Akwa Ibom	Light	9	Use of insecticides

7.0. AGRICULTURAL MECHANIZATIONS

7.1 Tractor Availability and Functionality

Tractor is a multipurpose farm machine used for agricultural operations both on-farm and off-farm. It is used for preparing agricultural land, applying herbicides on the crops, Harvesting, transportation of farm produce and processing. Most farmers in Nigeria are small scale and medium scale farmers who depend solely on manual labour to carry out agricultural operations. The operations include but not restricted to land clearing, ploughing, harrowing, ridging, planting, herbicides/insecticides application, harvesting and post-harvest operations like threshing, peeling, drying, winnowing, milling. All these operations, when manually done, are tedious resulting in low output per hectare and undue post-harvest loss. With all these limitations, it is necessary to critically look at the agricultural mechanization in Nigeria in terms of tractor use, cost of farm operations, frequency/appropriate use of tractor, post-harvest loss, crops processing and the availability of grains reserved.

Results of the Agricultural Performance Survey (APS) for 2021 showed that the total number of functional government tractors in Nigeria in 2020 and 2021 was 2,335 and 3,476 respectively. This represents about 49 % increment. Similarly, the total number of functional private tractors in 2020 and 2021 were 812 and 1,008 respectively representing a 24% increase. Similarly, the total number of non-functional government tractors in 2020 and 2021 was 2,039 and 2,797 respectively, that is about 37% increment.

On the other hand, the total number of non-functional private tractors remained same in both 2020 and 2021. More information concerning tractors availability in each state are presented on Tables 7.1 to 7.6. On Table 7.1 are the data on tractors availability and status in the North East zone. The results show that the total functional government tractors in the zone in 2020 and 2021 was 78 and 86, respectively, indicating an increase of about 10%. Information on functional private tractors showed an increase of 25% when compared with that of 2020. The total number of non-functional government tractors between 2020 and 2021 decreased by about 36%. Bauchi State witnessed a decrease in functional government tractors by 35 % in 2021. Borno and Yobe States witnessed an increase in the number of functional government tractor in 2021 by 22% and 60% respectively. Borno State has the highest number of functional and non-functional government tractors both in 2020 and 2021, with 45 and 55 functional government tractors and 130 and 70 non-functional government tractors recorded respectively.

For the availability of private tractors in the North East zone, only Yobe State reported functional private tractors in 2020 and 2021. The state reported 16 and 20 functional private tractors in 2020 and 2021 respectively (see Table 7.1.).

Table 7.1: Government and Private Tractor Available in North East Zone

NORTH EAST ZONE												
State	Government Tractors						Private Tractors					
	Functional			Non-Functional			Functional			Non-Functional		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Bauchi	23	15	-34.78	13	21	61.53						
Borno	45	55	22.2	130	70	-46.15	Nil	nil	Nil	Nil	nil	Nil
Yobe	10	16	60	-	-	-	16	20	25			
Total	78	86	10.3	143	91	-36.4	16	20	25			

In the South South zone, the total number of functional government tractors in 2020 and 2021 were 38 and 37 tractors, indicating a decrease of about 3% as shown in Table 7.2. The number of functional government tractors remains unchanged for Akwa Ibom, Bayelsa, Cross River and Delta states with 4, 10, 3 and 20 tractors respectively in both 2020 and 2021. However, Rivers state reported 1 functional government tractor in 2020, which became non-functional in 2021. Delta State reported the highest number of government functional tractors in both 2020 and 2021 (20 tractors).

Table 7.2: Government and Private Tractors Available in South South Zone

SOUTH SOUTH ZONE												
State	Government Tractors						Private Tractors					
	Functional			Non-Functional			Functional			Non-Functional		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Akwa-Ibom	4	4	-	NA	NA		NA	NA			NA	
Bayelsa	10	10	-	NA	NA		NA	NA		NA		
C/River	3	3	-	NA	NA		2	NA			NA	
Delta	20	20	-				NA	NA		NA	NA	
Rivers	1	-	-	-	1	-	-	-	-	-	-	
Total	38	37	-2.6				2					

The total number of functional government tractors in the South east zone remained 41 tractors from 2020 to 2021. Ebonyi State had the highest number of functional government tractors (34 tractors) in 2020 as well as 2021. Abia State and Imo State had the least number of tractors (1 tractor, for each state). In 2021, Imo State increased the number of tractors from 1, to 2 as shown on Table 7.3. The number of non-functional tractors in the South East zone for 2020 and 2021 was 14. Ebonyi had the highest number of non-functional government tractors (7 tractors) in 2020 and 2021 amounting to 50% of all the non-functional tractors in the South East zone. Imo and Enugu states had 4 and 3 tractors respectively in 2020 and 2021.

The total number of functional private tractors in the South East zone in 2020 and 2021 was 21 and 1 respectively, representing a 95% decrease as reported by Ebonyi State.

Table 7.3: Government and Private Tractors Available in South East Zone

SOUTH EAST ZONE												
State	Government Tractors						Private Tractors					
	Functional			Non-Functional			Functional			Non-Functional		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Abia	1	-	-	1	-		-	-		-	-	
Ebonyi	34	34	-	7	7	-	21	1	-95.23			
Enugu	5	5	-	3	3	-	nil	nil	nil	Nil	nil	Nil
Imo	1	2	100	4	4	-						
Total	41	41	-	14	14	-	21	1	-95.23			

In the South West zone, the number of functional government tractors in 2020 was 11 and 10 in 2021. The result signified a 9% decrease as indicated on Table 6.4. Ogun State had the highest number of functional tractors in 2020 (5 tractors). However, in 2021, number of functional tractors in Ogun State dropped to 4, bringing it to be same number as that of Lagos state.

This is presented on Table 6. 4. A total of 53 non-functional government tractors were recorded in 2020 and 2021. Ogun State had the highest number of non-functional government tractors (27 tractors) and this represented about 49% of the non-functional government tractors in the zone. A total of 728 functional private tractors were reported in 2020 and 2021 in this zone. Oyo State had the highest number of private functional tractors of 704 and this represented 97% of functional private tractors in the zone in 2020 and 2021. Lagos State had 3 non-functional private tractors both in 2020 and 2021 as shown on Table 7.4.

Table 7.4: Government and Private Tractors Available in the South West Zone

SOUTH WEST ZONE												
State	Government Tractors						Private Tractors					
	Functional			Non-Functional			Functional			Non-Functional		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Ekiti	1	1	-	10	10	-						
Lagos	4	4	-	6	6	-	11	11	-	3	3	-
Ogun	5	4	-20	27	27	-	13	13	-	-	-	-
Osun	1	1	-	10	10	-	-	-	-	-	-	-
Oyo	-	-	-	-	-	-	704	704	-	-	-	-
Total	11	10	-9.1	53	53	-	728	728	-	3	3	-

In the North Central zone, a total of 240 and 247 functional government tractors were reported in 2020 and 2021 respectively. That indicated a percentage change of about 3% between 2020 and 2021 as displayed on Table 7.5. Plateau State had the highest number of functional government tractors, that is 235 245 in 2020 and 2021 respectively representing over 90% of total functional tractors in the zone. Some 117 and 105 non-functional government tractors were recorded in 2020 and 2021, respectively in the zone. Plateau State had the highest number of non-functional government tractors in 2020 (113 tractors) and 2021 (103 tractors) as shown on Table 6.1. The total number of functional private tractors in the North central zone in 2020 and 2021 was 45 and 259 respectively; indicating a tremendous percentage increase of over 400% as compared to 2020. The FCT reported some 10 non-functional private tractors in 2020 and 2021.

Table 7.5: Government and Private Tractors Available in North Central Zone

NORTH CENTRAL ZONE												
State	Government Tractors						Private Tractors					
	Functional			Non-Functional			Functional			Non-Functional		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
FCT							15	13	-13.33	10	10	-
Kogi	1	2	100	4	2	50	-	-				
Nasarawa	4	-		-	-		30	30		-	-	
Plateau	235	245	4.255	113	103	-8.84	-	216			-	
Total	240	247	2.9	117	105	-10.3	45	259	475.6	10	10	-

In the North West zone, functional government tractors in 2020 and 2021 were 1,927 and 3,055 respectively; and that meant a 59% increase. In 2020, Katsina State had the highest number of functional government tractors (1,870 tractors) and that figure represented a 97% of functional tractors in the zone. Also in 2021, Katsina State had the highest number of functional tractors (2,950 tractors) representing over 95% increase in total number of functional tractors in the zone. Zamfara State had the least number of tractors in 2020 and 2021; that is 7 and 5 tractors, respectively, indicating about 29% decrease in the state's owned tractors for the year under review. The total number of non-functional government tractors in the zone in 2020 was 1,712 and 2,350 in 2021 indicating an increase of about 48% . Katsina State had the highest number of non-functional government tractors in 2020 and 2021, which stood at 1,600 and 2,428 tractors, respectively, with a 52% increase. Kebbi State had the least non-functional government tractors in 2020 and 2021 (7 tractors) as indicated on Table 7.6. There was no information concerning functional and non-functional private tractors in the zone.

Table 7.6: Government and Private Tractors Available in North West Zone

NORTH WEST ZONE												
State	Government Tractors						Private Tractors					
	Functional			Non-Functional			Functional			Non-Functional		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Jigawa	50	100	100	NIL	NIL	-	-	-	-	-	-	-
Kano	-	-	-	8	8	-21	-	-	-	-	-	-
Katsina	1870	2950	57.75	1600	2428	51.75	-	-	-	-	-	-
Kebbi	-	-	-	7	7	-	-	-	-	-	-	-
Zamfara	7	5	-28.57	97	87	-	-	-	-	-	-	-
Total	1,927	3,055	58.5	1,712	2,530	47.8	-	-	-	-	-	-

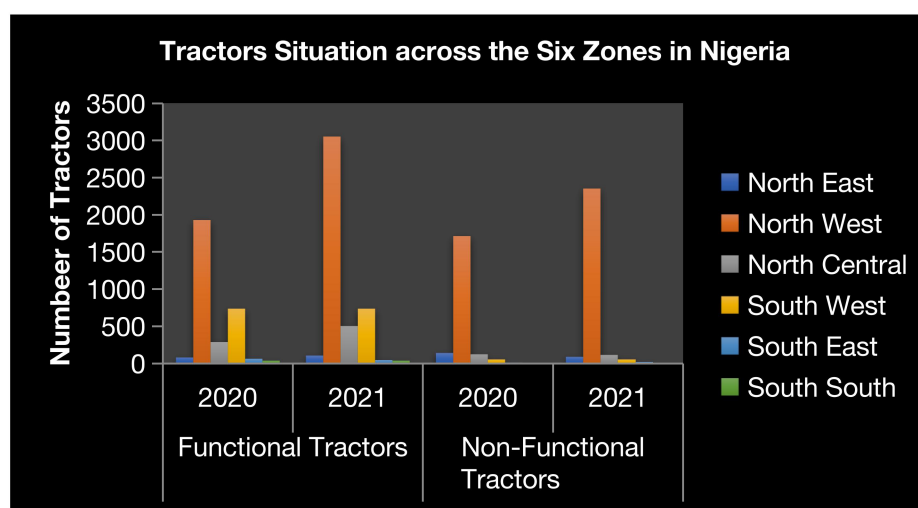


Figure 7.1: Tractor situation across the six zones in Nigeria

7.2 Animal Traction

Animal traction is the use of some special animals that have reasonable horsepower and strength to perform tillage operations as well as to transport farm produce from one location to another. The use of animal traction is peculiar to some states in Nigeria, mainly the northern states. The information on charges of farm operations such as land clearing, ploughing, harrowing, and ridging agricultural land per hectare were collected in the 2021. The results are presented on Table 6.7. The states with information on animal traction include Borno, Bauchi, Adamawa and Kebbi state. Adamawa State charged the highest rate for animal traction in 2020 and 2021.

Information on cost of animal traction for tillage operations in 2020 and 2021 were compared and presented on Table 7.7. The charges for animal traction per hectare in Adamawa in 2020 were ₦18,000 and ₦20,000 in 2021, an indication of 11% increment. Borno, Bauchi, and Kebbi State recorded 50%, 25% and 33% increment between 2020 and 2021 respectively for similar activities.

Table 7.7: Rate of Animal Traction Charges in Some States

S/No	State	2020	2021	% Change
1	Adamawa	18,000	20,000	11.11
2	Bauchi	8,000	10,000	25
3	Kebbi	15,000	20,000	33.33
4	Borno	4,000	6,000	50

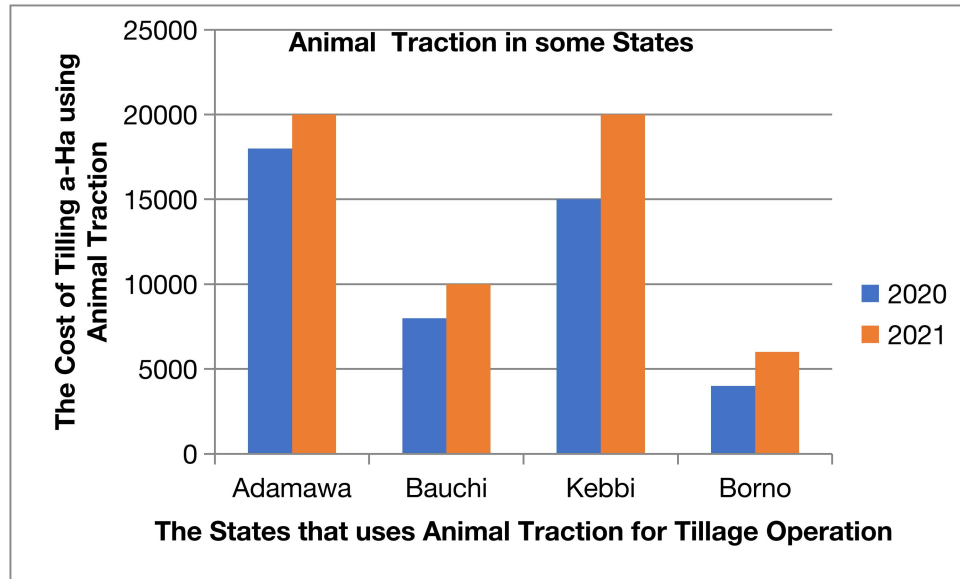


Figure 7.2: The rate of charges per ha for animal traction

7.3 Cost of Tillage Operations

Tillage is the mechanical manipulation of soil with tools and implements for obtaining conditions ideal for seed germination, seedling establishment and growth of crops. Tillage improves the physical and hydro-physical properties of the soils, and consequently increases moisture retention capacity of the soil and crop yield. Due to the indispensability of tillage in crop production, the 2021 APS surveyed the average cost of land clearing, ploughing, harrowing, and ridging a hectare of land across Nigeria. The costs of tillage across in each zone are presented on Table 7.8 up to Table 6.13.

The average cost of clearing a hectare of land in the North East zone was ₦ 19,600 in 2020 and ₦ 19,700 in 2021 as shown in Table 7.8. There was a minimal percentage increase of less than 1% in land clearing in the zone. The average cost of ploughing a hectare in 2020 was ₦ 14,500 and ₦ 15,125 in 2021. The percentage increase in ploughing cost was about 4% as shown on Table 7.8. The average cost of harrowing in the zone in 2020 was ₦ 10,333.33 per ha and ₦ 11,166.66 per ha in 2021. That showed a 8% increment. The average costs of ridging per ha in 2020 and 2021 were ₦ 10,000 and ₦ 13,750 respectively, indicating a percentage increase of about 38 %.

₦ 190,000 to clear a hectare and spent ₦ 210,000 in 2021 to perform the same task, an increment of 11%.

The average cost of ploughing a hectare in South South zone remained the same for 2020 and 2021 (₦ 24,000). The average cost spent on harrowing a hectare in 2020 was ₦ 20,000 and ₦ 21,000 in 2021, indicating a percentage increase of about 5% compared to 2020. In 2020 and 2021; the cost of ridging operation stood at ₦ 25,000 and ₦ 26,250 respectively, indicating an increment of 5 % as presented on Table 7.12 and in Figure 7.3.

Table 7.12: Cost of Tillage Operations in South South Zone

SOUTH SOUTH ZONE												
State	Land Clearing (N/Ha)			Ploughing (N/Ha)			Harrowing (N/Ha)			Ridging (N/Ha)		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Akwa Ibom				25000	25000	-	25000	25000	-	25000	25000	-
Bayelsa	20000	25000	25	20000	20000	-	20000	25000	25	20000	25000	25
C/River	12000	12000	-	30,000	30000	-	20000	20000	-	35000	35000	-
Delta				20000	20000	-	20000	20000	-	20000	20000	-
Edo	190000	210000	10.56	25000	25000	-	15000	15000	NA	NA	NA	
Zonal Mean	74000	82333.33	11.26	24000	24000		20000	21000	5	25000	26250	5

In the South East Zone, the cost of clearing one hectare of farmland in both 2020 and 2021 stood at ₦ 20,000 and Enugu was the only state in the zone that provided the information. The average cost of ploughing a hectare in 2020 was ₦ 32,500 and ₦ 42,500 in 2021 indicating an average percentage increment of about 31%. Anambra State paid ₦25,000 in 2020 and ₦35,000 in 2021 to plough a hectare. Thus, the state with the highest charges for land ploughing per hectare in the zone.

In 2020, the average cost of harrowing was ₦ 27,500 and ₦ 33,750 in 2021, with an average percentage increase of 23%. Enugu State farmers reported 100% increment in the cost of harrowing operations while Anambra and Ebonyi reported 40% and 25% increment, respectively. The average costs for ridging per hectare were ₦ 15,000 and ₦18,750 in 2020 and 2021 respectively, an indication of 25% increment.

Table 7.13: Cost of Tillage Operations in South East Zone

SOUTH EAST ZONE												
State	Land Clearing (N/Ha)			Ploughing (N/Ha)			Harrowing (N/Ha)			Ridging (N/Ha)		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Abia				15000	15000		15000	15000		15000	15000	-
Anambra				25000	35000	40	25000	30000	20	25000	25000	-
Ebonyi				80000	100000	25	60000	70000	16.6	100000	150000	50
Enugu	20,000	20,000	-	10,000	20,000	100	10,000	20,000	100	10,000	20,000	100
Zonal Mean	20000	20000		32500	42500	30.76	27500	33750	22.72	15000	18750	25

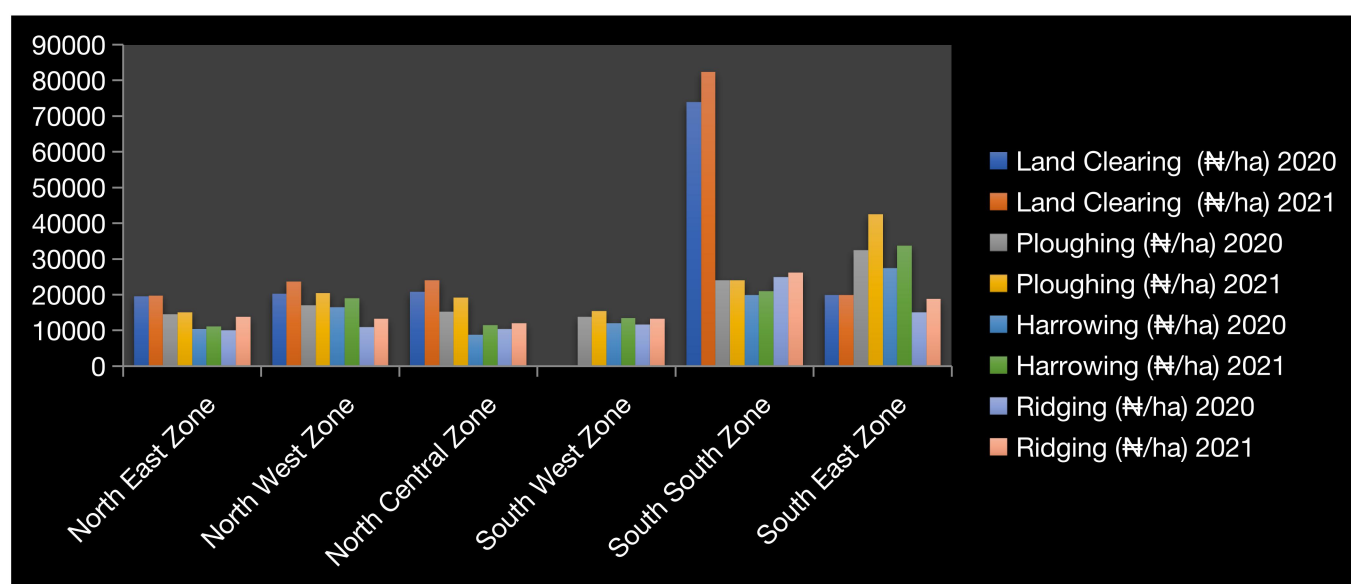


Figure 7.3: The average cost of each tillage operations in each zone across the country

7.4 POST-HARVEST LOSSES

A post-harvest loss is any damage or wastage of agricultural produce incurred from the harvested point up to the final use, sale or storage. Post-harvest loss are usually measured in terms of loss experienced during harvesting, drying, processing, transportation, and storage. Post-harvest loss information could be very insignificant at each unit operations but when aggregated, the impact is huge. It has been observed and reported over years that post-harvest loss between harvesting to storage stage are between 45 – 85% in Nigeria. Hence, there is need to pay attention to this phenomenon in order to enhance product quality, ensure availability of agricultural produce, and extend produce shelf life. Agricultural post-harvest loss could be classified into crop, animal and animal products damages.

7.4.1 CROP POST-HARVEST LOSSES

Crop post-harvest loss is any damage and/or wastage incurred on crops. The loss could be any of mechanical damage during harvesting and/or processing, infestation by pest/diseases or theft.

Table 7.14 presents the crop post-harvest losses. Crops loss were reported for maize, cowpea, rice, millet, cassava, vegetables, onions, soybean, groundnut, sesame and sorghum in 2021. The loss was caused by pest/diseases, mechanical damage during shelling/threshing/winnowing, poor drying and theft. The loss occurred during harvesting, processing, drying and storage. The estimated loss was from 25 to 90%.

Maize, rice and onions recorded the greatest loss of 70, 80 and 50% respectively. These figures could be due to poor processing techniques, use of inappropriate processing machines, and poor storage structures. Usually, post-harvest loss in crops are reduced through the following;– the adoption of Good Agricultural Practices (GAP), the use of improved processing machines, the use of effective and appropriate crop dryers, and the use of modern storage facilities. Training and re-training of farmers and processors on GAP and some processing machines like threshers, shellers, decorticators, winnowers, dryers, millers) could also reduce crop post-harvest loss in Nigeria.

Table 7.14: Crop Post-harvest losses

State	Crop with significant losses this year	Commonest loss type	Commonest stage of loss	Commonest place of occurrence	Estimated loss in % Crop	Suggestion/ Way Forward
Kwara	Maize	Weevil	Storage	Home	45	Good storage facility
Borno	Cowpea	Mechanical Damage	Threshing	Farm	25	Improved processing machines
	Rice	Processing	Harvesting	Farm	25 - 30	Improved processing machines
Katsina	Cowpea	Insect attack	Storage	Store	30	Good storage facility
Kebbi	Rice	Flood	Maturity/ Harvesting	Farm	20	GAP
Lagos	Millet	Mechanical Damage	Threshing	Home	25	Improved processing machines
	Maize	Pest /Disease	Harvesting	Farm	95	GAP
	Cassava	Rain/Erosion/Flood	Harvesting	Farm	70	GAP
	Vegetable	Pest/Disease, Mechanical	Harvesting	Farm	80	Improved processing

		damage, Rain/Erosion/ Flood				machines, GAP
Sokoto	Onions	Rot	Storage	Store	50	Improved storage facility
	Millet	Mechanical damage	Threshing	Farm	20	Improved processing machines
Anambra	Maize	Pest/disease	Harvesting	Farm	40	GAP
Ebonyi	Rice	Pests/Disease	Tillering	Field	80	Improved storage facility
	Maize	Pests	Storage	Storage	80	Improved storage facility
Bauchi	Soybean	Mechanical damage, Theft, Poor drying	Harvesting, Drying	Home, Farm	30	Proper drying on field
	Rice	Pest/disease, Theft, Poor drying, Rain/erosion	Harvesting, Drying, Transport, Crop processing	Home	30	Training of farmers
	G/nut	Pest/disease, Theft, Poor drying	Harvesting, Drying, Crop processing, Storage	Home, Farm	10	
Gombe	Rice	Mechanical Damage	Winnowing	Farm	5	Crop dryers
	Sesame	Theft	Harvesting	Farm	15	Guards should be hired
	Sorghum	Pest	Drying	Farm	5	Anti-ants should be applied
Nasarawa	Rice	Pest/Disease	Processing	Market		GAP
	Maize	Pest/Disease	Harvesting/drying	Farm	20-70	GAP

7.4.2 LIVESTOCK POST-HARVEST LOSSES

Livestock post-harvest loss is any wastage and or shortage experienced in animal breeding and processing. Such loss could be caused by infection of pest/diseases, theft, and/or mortality. Loss in animal production is increasingly affecting animal production in Nigeria due to many factors. Thus, there is the need to give this challenge an utmost attention at all levels.

Results on Table 7.15 show the post-harvest loss reported for animal production in Nigeria in 2021. Reports of animal production loss were available in Borno, Lagos, Ebonyi, Bauchi and Gombe. Loss of animals were recorded for sheep, cow, goat and poultry birds such as broilers and layers. Post-harvest loss of these products were reported to be between 10-75%, and were caused majorly by theft and pest/disease attacks. Borno State reported a 75% post-harvest loss for cow due to cattle rustling. Gombe and Ebonyi States reported a loss of 40 % for goats and sheep due to communal clash and grazing right tussles. Moreover, 70 % post-harvest loss for layers and broilers were reported in Lagos and Ebonyi states. The loss was associated with the outbreak of some pests/diseases. Suggestions to minimize animal post-harvest loss in animal production were prompt vaccinations against pest/diseases, better hygiene and improved security on farms.

Table 7.15: Animal Post-Harvest Loss

State	Livestock with significant losses this year	Commonest harvest loss type	Commonest stage of loss	Estimated loss in %	Suggestion/ Way forward
Borno	Sheep	Pest & Diseases	Farm	20	Prompt Vaccination
	Cow	Theft (Insecurity)	Farm	75	Security must be Provided
Lagos	Layer	Pest/ Disease	Rearing	100%	Good Agricultural practices
Ebonyi	Sheep	Communal Conflicts	Field	40	Security beef up
	Goat	Communal Conflicts	Field	40	Security beef up
	Cow	Communal Conflicts	Field	40	Security beef up
	Broiler	Pests/disease	Farm	70	Use of drugs
	Layer	Pests/disease	Farm	70	Use of drugs
Bauchi	Sheep	Pest/disease, Theft	Harvesting, Transportation	10	Vaccination
	Goat	Pest/disease, Theft	Harvesting, Transportation	10	Vaccination
	Cow	Pest/disease, Theft	Harvesting, Transportation	10	Vaccination
	Broiler	Pest/disease, Theft	Harvesting, Transportation	30	Vaccination
	Layer	Pest/disease, Theft	Harvesting, Transportation	15	Vaccination
Gombe	Sheep	Theft	During grazing	30	Avoid free range system
	Goat	Rain	Rain season	15	They should be

					kept in the house
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7.4.3 ANIMAL PRODUCT POST-HARVEST LOSSES

Animal products post-harvest loss is any wastage or damage incurred on animal products. Such products are usually milk, eggs, meat, bones, hides and skin and lots more. Animal products are beneficial to agricultural development, and they increase farmers and agricultural produce processors' income. Two major animal products were considered in this survey, namely eggs and milk.

Results on Table 7.16 show the animal products loss recorded in Borno, Lagos, Ebonyi, Bauchi and Gombe states. The highest post-harvest animal products loss recorded across the states was from egg production. Ebonyi State reported 75% egg loss, Lagos reported 65% and Bauchi reported 30% loss all due to improper handling associated with accidents and thefts. The post-harvest loss reported in eggs could almost not be avoided due to the fragile nature of the product and the none or low adoption of appropriate handling technique by many farmers. Milk products are usually damaged or lost during milking, transportation, and storage. The loss happened due to lack of milking machines, storage cans and cold chain vehicles required for transporting milk products.

Possible solutions to lessen post-harvest loss in animal products is the production of affordable processing machines such egg packer, milking machines, cool storage system by research institutes in Nigeria. More so, the government can invest in and encourage made in Nigeria vehicles (affordable) egg and milk transportation. While it is urgent to build more roads to reduce the mileage from farms to market, it is important as well to upgrade and maintain the existing ones to reduce animal products loss during transportation. However, it is imperative that farm workers and processors are consistently exposed to the best safety practices for handling animal products throughout the value chain to minimize loss.

Table 7.16: Animal Product Post-Harvest Losses

State	Livestock product with significant losses this year	Commonest loss type	Commonest stage of loss	Estimated loss in %	Suggestion/ Way forward
Borno	Milk	Poor Feeding	Handling	25	Pasture should be given Priority
Lagos	Eggs	Glut	Storage	65	Government should off take
Ebonyi	Milk	Transport	Transporting	75	Careful handling
	Eggs	Transport	Transporting	75	Careful handling
Bauchi	Milk	Pest/disease	Harvesting	30	
	Eggs	Theft, Accident	Harvesting, Transportation,	30	
Gombe	Milk	Accident	Transportation	50	Milk should be put in Jerry cans

	Eggs	Theft	Harvesting	10	Vigilant Guards
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7.5 GRAIN RESERVES

Agricultural produce that are not of immediate use are reserved for future use. It is necessary to reserve agricultural produce, especially the grains for future use (attend to emergency situation and food crises). Grains are common agricultural produce consumed in all Nigerian households in one form or the other; thus, they are reserved by individual homes and government agencies as a safety strategy. However, public grain reserves are managed by states and the federal government in Nigeria. Common structures for public reserves for grain were warehouses and silos. For the individual farmers, the use of traditional store house (Rumbu) and (Cribs) were reported in this survey.

7.5.1 State Owned Grain Reserves

States owned grain reserves are commonly constructed in forms of warehouses and silos. Such grain reserves are managed by the state Agricultural Development Project (ADPs) and the state Ministries of Agriculture (MoAs), and are often located in different Local Government Areas (LGAs) of the state. Total quantity of grain reserve managed by different states across Nigeria was 676,300 metric tons as at the time this survey was carried out.

Results on Table 7.18 show the states in the North West zone with functional grain reserves. The states are Zamfara, Kebbi, Kaduna, Katsina, Jigawa and Kano with the storage capacity of 188,700, 109,000, 48,000, 14,500, 15,000 and 24,400 metric tons respectively.

The zonal grain in reserve was recorded as 399,600 metric tons in 2021. The state governments manage these grain reserves with assorted grains like maize, sorghum, millet. The common storage structures used in the zone were warehouses and silos.

Table 7.18: Grain Reserves in the North West

North West Zone					
S/No	STATE & LOCATION	CAPACITY (MT)	OWNERSHIP	COMMODITIES STORED	REMARKS
Zamfara					
1.	2,650 MT each in 14 LGA	37,100	State Govt.	Assorted grains	Functional
2.	Commodity and Marketing Board warehouses @ Gada biyu, Gidan dawa. 5 Nos 3000MT each	15,000	State Govt.	Assorted grains	Functional
3.	ZASCO Ware houses a). Main Depot, Zamaru b). Unguwar Gwaza, Gusau c). Coca cola store, Samaru d). 3 Stores, Samaru e). Others	a) 5,550 b) 2,800 c) 1,500 d) 1,950 e) 4,800	State Govt.	Assorted grains	Functional
4.	Food Security Store a. 10 Store @2,000MT b. Silos, Rawayya	a) 20,000 b) 100,000	State Govt.	Assorted grains	Functional
	Total	188,700			
Kebbi					
1.	Tudun Wada, Birnin Kebbi.	3 warehouses @1,000	State Govt.	Grains	Functional
2.	G/Sara, Birnin Kebbi	3 warehouses: a) 700; b) 650; c) 650	State Govt.	Grains	Functional
3.	Argungu	1,000	State Govt.	Grains	Functional
4.	Zuru	2 warehouses@ 1,000	State Govt.	Grains	Functional
5.	Yauri	1,000	State Govt.	Grains	Functional
6.	Birnin Kebbi (Silos Complex)	100,0000	State Govt.	Grains	Functional
	Total	109,000			
Kaduna					
1.	Kafanchan Grains Silos	5,000	State Govt.	Grains	Functional
2.	Kafanchan Feed & Flour Mill	5,000	State Govt.	Grains	Functional
3.	Kafanchan Grains Store, Jema'a LGA	1,000	State Govt.	Grains	Functional

4.	Kachia Grains Store	1,000	State Govt.	Grains	Functional
5.	Saminaka Grains Silos	5,000	State Govt.	Grains	Functional
6.	Saminaka Grains Store	1,000	State Govt.	Grains	Functional
7.	Zaria Grains Silos (Chikaji)	5,000	State Govt.	Grains	Functional
8.	Zaria Grains Store (Chikaji, Sabon Gari LGA)	4,000	State Govt.		Functional
9.	Birnin Gwari Grains Silos	5,000	State Govt.	Grains	Functional
10.	Birnin Gwari Grains Stores, Gidan Waziri, Birnin Gwari	4,000	State Govt	Grains	Functional
11.	Ikara Grains Store, Ikara	10,000	State Govt.	Grains	Functional
12.	Kaduna Grains Store, Govt. Garden Barnawa	1,000	State Govt.	Grains	Functional
13.	Kaduna Grains Store, Kakuri. Kaduna South LGA	1,000	State Govt.	Grains	Functional
	Total	48,000			
Katsina					
1.	Katsina, Katsina LGA	2 warehouses @1,500	State Govt.	Grains	Functional
2.	Daura	2,000	State Govt.	Grains	Functional
3.	Tambu-Daura	2,000	State Govt.	Grains	Functional
4.	Mani	1,000	State Govt.	Grains	Functional
5.	Malumfashi	2,000	State Govt.	Grains	Functional
6.	Kankiya	1,000	State Govt.	Grains	Functional
7.	Kafin Soli	2,000	State Govt.	Grains	Functional
8.	Dutsinma	1,500	State Govt.	Grains	Functional
9.	Funtua	2 warehouses @1,500	State Govt.	Grains	Functional
	Total	14,500			
Jigawa					
1.	Aujara	1,500	State Govt.	Grains	Functional
2.	Rigim	1,500	State Govt.	Grains	Functional
3.	Gumel	1,500	State Govt.	Grains	Functional
4.	Mallam	1,500	State Govt.	Grains	Functional
5.	Madori	1,500	State Govt.	Grains	Functional

6.	Sada	1,500	State Govt.	Grains	Functional
7.	Andaza	1,500	State Govt.	Grains	Functional
8.	Birnin Kudu	1,500	State Govt.	Grains	Functional
9.	Birniwa	1,500	State Govt.	Grains	Functional
10.	Hadejia	1,500	State Govt.	Grains	Functional
	Total	15,000			
Kano					
1.	Gezawa, Gezawa LGA	2,000	State Govt.	Grains	Functional
2.	Kwarkiya, Minjibir LGA	2,000	State Govt.	Grains	Functional
3.	Tukui, Danbatta LGA	2,000	State Govt.	Grains	Functional
4.	Danzabuwa, Bichi LGA	2,000	State Govt.	Grains	Functional
5.	Tofa, Tofa LGA	2,000	State Govt.	Grains	Functional
6.	Getso, Gwarzo LGA	2,000	State Govt.	Grains	Functional
7.	Balare, Gaya LGA	2,000	State Govt.	Grains	Functional
8.	Lamire, Wudil LGA	2,000	State Govt.	Grains	Functional
9.	Tsakuwa, Dawakin Kudu, LGA	2,000	State Govt.	Grains	Functional
10.	Maganda Nassarawa LGA	3 warehouses @1,000; 2 warehouses @ 700	State Govt.	Grains	Functional
11.	Kadawa, Garun, Malam L.G.A.	4 warehouses @500.	State Govt.	Grains	Functional
	Total	24,400			
	Zonal Total		399,600MT		

Results on Table 7.19 show the grain reserves in the states in the North East zone for the year 2021. States with reports on reserved grains were Adamawa, Gombe and Bauchi amounting to 8,500, 8,100 and 13, 830 metric tons respectively. The grains were stored in silos and warehouses in different LGAs in the state and managed by the state government. The total volume of grains reserved for the zone was 30,430 metric tons. It was observed during the survey team to some of the grain reserve facilities that the facilities were functional but the volume of grains in them was below expected capacity. The farmers opined that the level of insurgencies and insecurity in the zone might contributed to why the facilities were not stocked too much. Adamawa and Bauchi states reserved their grains in silos while Gombe State resulted to warehousing.

Table 7.19: Grain Reserve in the North East

North East					
S/No	STATE & LOCATION	CAPACITY (METRIC TONS)	OWNERSHIP	COMMODITIES STORED	REMARKS
Adamawa					
1.	Ganye	1,000	State Govt.	Grains	Functional
2.	Numan	1,000	State Govt.	Grains	Functional
3.	Yola North	3,000	State Govt.	Grains	Functional
4.	Yola South	2,500	State Govt.	Grains	Functional
5.	Gombi	1,000	State Govt.	Grains	Functional
	Total	8,500			
Gombe					
1.	9 Warehouses	8,100	State Govt	Grains	Functional
Bauchi					
1.	Alkaleri	600	State Govt	Grains	Functional
2.	Bauchi, ADP	1,500	State Govt	Grains	Functional
3.	Bauchi, Kyangere	600	State Govt	Grains	Functional
4.	Bogoro,	500	State Govt	Grains	Functional
5.	Dambam	390	State Govt	Grains	Functional
6.	Darazau,	600	State Govt	Grains	Functional
7.	Das, Das	600	State Govt	Grains	Functional
8.	Gamawa	450	State Govt	Grains	Functional
9.	Gamawa, Wabu	1,500	State Govt	Grains	Functional
10.	Ganjuwa, Kafin Madaki	350	State Govt	Grains	Functional
11.	Giyade, Giyade	390	State Govt	Grains	Functional
12.	Itas Gadau, Itas Dadau	300	State Govt	Grains	Functional
13.	Jama'are, Jama're	400	State Govt	Grains	Functional
14.	Katagum, Azare	600	State Govt	Grains	Functional

15.	Kirfi, Kirfi	400	State Govt	Grains	Functional
16.	Misau, Misau	600	State Govt	Grains	Functional
17.	Ningi, Ningi	600	State Govt	Grains	Functional
18.	Shira, Yana	500	State Govt	Grains	Functional
19.	Tafawa Balewa, Boto	350	State Govt	Grains	Functional
20.	Toro, Toro	600	State Govt	Grains	Functional
21.	Warji, Warji	300	State Govt	Grains	Functional
22.	Zaki, Zaki	350	State Govt	Grains	Functional
	Total	13,830			
	Zonal Total		30,430MT		

Results on Table 7.20 present the grain reserves in the North Central zone for the year 2021. The total volume of grains stored in the zone was 133,000 metric tons. The break will show that Benue had 55,000; Taraba = 15,000; Nasarawa =, 28,600 and Plateau stored some 34,400 metric tons of assorted grains. Most of the storage structures were functional and managed by the state governments. Taraba State had the least grain reserve in the zone in 2021. This might be associated to the use of warehouses (which could only accommodate lesser smaller volume when compared to what silos could hold.

Table 7.20: Grain Reserved in the North central

North Central					
S/No	STATE & LOCATION	CAPACITY (METRIC TONS)	OWNERSHIP	COMMODITIES STORED	REMARKS
Benue State					
1.	Otukpo (Silos complex)	25,000	State Govt.	Grains	Functional
2.	Gboko	A.1,000 B.1,000	State Govt.	Grains	Functional
3.	Katsina-Ala	1,000	State Govt.	Grains	Functional
4.	Zakibiam	1,000	State Govt.	Grains	Functional
5.	Vandakia	500	State Govt.	Grains	Functional
6.	Aliege	500	State Govt.	Grains	Functional
7.	Km 4 Gboko (Silos complex)	25,000	State Govt.	Grains	Functional
	Total	55,000			

Taraba					
1.	Jalingo: 2 warehouses	2,000	State Govt.	Grains	Functional
2.	Bali	2,000	State Govt.	Grains	Functional
3.	Kormo- Gassol	5,000	State Govt.	Grains	Functional
4.	Wukari: 2 warehouses	2,000	State Govt.	Grains	Functional
5.	Taku: 2 warehouses	2,000	State Govt.	Grains	Functional
6.	Donga: 2 warehouses	2,000	State Govt.	Grains	Functional
	Total	15,000			
Nasarawa					
1.	Laffiya	600	State Govt.	Grains	Functional
2.	Shabu	600	State Govt.	Grains	Functional
3.	Akwanga	600	State Govt.	Grains	Functional
4.	Keffi	600	State Govt.	Grains	Functional
5.	Nassarawa	600	State Govt.	Grains	Functional
6.	Agyaragu, Lafia	600	State Govt.	Grains	Functional
	Total	28,600			
Plateau					
1.	Bokkos Farm Project	2 warehouses: a. 1,400; b. 500	State Govt.	Grains	In good condition
2.	Dogon Dutse PADP Hqtrs, Jos North L.G.A.	1,000	State Govt.	Grains	In good condition
3.	Riyon	500	State Govt.	Grains	In good condition
4.	Bukuru	1,000	State Govt.	Grains	In good condition
5.	Mangu	500	State Govt.	Grains	In good condition
6.	Pankshin	500	State Govt.	Grains	In good condition
7.	Kanam	1,000	State Govt.	Grains	In good condition
8.	Wase	1,000	State Govt.	Grains	In good condition
9.	Langtan North	500	State Govt.	Grains	In good condition

10.	Quan'an-pan	500	State Govt.	Grains	In good condition
11.	Mikang	500	State Govt.	Grains	In good condition
12.	Kanke	500	State Govt.	Grains	In good condition
	Total	34,400			
	Zonal Total		133,000MT		

Data on Table 7.21 indicate the grain reserves in the South West zone for the year 2021. Osun State had a reserve capacity of 2, 375 metric tons, which is managed by the state government. The facility was still under construction as at the time of this survey. Ekiti State reported a storage capacity of 3, 750 metric tons. The state government also manages the reserve. Grains and fertilizers were the commodities stored in the reserves. The reserve facilities were functional and in good condition.

Moreover, Oyo state reported a total grain reserve capacity of 15, 000 metric tons out of which 5, 000 metric tons was used for maize storage. Fertilizer and cotton were stored in 6, 305 metric tons of silos in Ogun State. Furthermore, Lagos State reported some spacings used as warehouses in some LGAs for storing paddy rice, other agricultural produce and inputs. The total zonal storage capacity was 27, 430 metric tons in 2021.

Table 7.21: Grain Reserved in the South West

South West					
S/No	STATE & LOCATION	CAPACITY (METRIC TONS)	OWNERSHIP	COMMODITIES STORED	REMARKS
Osun					
1.	Osogbo, Ilobu Road	500	State Govt	Grains	Empty
2.	Oyan, Odo-Otin Local Govt.	1,000	State Govt		Under construction
3.	Esa-Oke	125	State Govt		Nearly completed
4.	Ilesa	125	State Govt		Nearly completed
5.	Ile-Ife	125	State Govt		Nearly completed
6.	Iwo	125	State Govt		Nearly completed
7.	Ede	125	State Govt		Nearly completed
8.	Ago Owu	125	State Govt		Nearly completed
9.	Mokore	125	State Govt		Nearly completed

	Total	2, 375			
Ekiti					
1.	Odo Ado, Ado-Ekiti	1,500	State Govt	Fertilizers & Grains	Functional
2.	Odo Ado, Ado-Ekiti	1,500	State Govt	Fertilizers & Grains	Functional
3.	Near Govt. House, Ado-Ekiti	750	State Govt	Agrochemicals	Functional
	Total	3, 750			
Oyo					
1.	Ofa-meta, Oyo Town	5,000	State Govt.	Maize	Functional
2.	Saki	1,000	State Govt.	Empty	
3.	Ayete, Ibarapa Central L.G.A.	1,000	State Govt.	Empty	
4.	Kishi	1,000	State Govt.	Empty	
5.	Iseyin	1,000	State Govt.	Empty	
6.	Ojongbodu	2,000	State Govt.	Empty	
7.	Otamokun	2,000	State Govt.	Empty	
8.	Iresaapa	2,000	State Govt.	Empty	
	Total	15, 000			
Ogun					
1.	Ajgunle	2,000	State Govt.	Fertilizers	Functional
2.	Asero, Abeokuta	2,000	State Govt.	Fertilizers	Functional
3.	Ilaro	2,000	State Govt.	Fertilizers	Functional
4.	Ipokia	2,000	State Govt.	Fertilizers	Functional
5.	Ijebu-Ode	2,000	State Govt.	Fertilizers	Functional
6.	Ikenne	2,000	State Govt.	Fertilizers	Functional
7.	Abeokuta, OGADEP	5	State Govt.	Fertilizers	Functional
8.	Ibara-Orile	300	State Govt.	Cotton	Functional
	Total	6, 305			
Lagos					

1.	Araga, Epe LGA	20 M X 6.5M	State Govt.	Paddy rice	Functional
2.	Warehouse, Temu Epe	18M X 5M	State Govt.	Empty	Functional
3.	Warehouse, Odogunyan, Ikorodu LGA	20M X 6.5M	State Govt.	Farm Produce	Functional
4.	Ajara Farm Settlement, Badagry LGA	20 M X 6.5M	State Govt.	Under construction	Functional
5.	Lagos State Input Supply Authority, Ojo LGA	18 X 18M	State Govt.	Agricultural inputs	Functional
Zonal Total			27, 430MT		

Table 7.22 shows the grain reserve for Anambra, Imo, Abia and Enugu states in the South East zone. The reserves were used mainly for fertilizers and agro-chemical storage.

The storage capacities of each state are Anambra, 5, 090 MT, Imo, 34, 170 MT, Abia, 15, 000 Mt and Enugu, 6, 000 MT, amounting to a zonal capacity of 60,260 metric tons. The Ministry of Agriculture and the Agricultural Development Program managed these reserves. However, field visits to some of the facilities showed that the reserves in Enugu State were empty due to some maintenance works reported to be ongoing as the time of this survey.

Table 7.22: Grain Reserved in the South East

South East					
S/No	STATE & LOCATION	CAPACITY (METRIC TONS)	OWNERSHIP	COMMODITIES STORED	REMARKS
Anambra					
1.	Min. of Agric H/Q, Awka	1,200	Min. of Agric	Fertilizers	Functional
2.	Awkuzu, Oyi LGA	2,000	Min. of Agric	Fertilizers	Functional
3.	Uli, Ihiala, LGA	360	Min. of Agric	Fertilizers	Functional
4.	Ogidi, Idemili North LGA	300	Min. of Agric	Fertilizers	Functional
5.	Abagana, Njikaoka LGA	330	ADP	Fertilizers	Functional
6.	Amawbia., Awka-South LGA	300	ADP	Fertilizers	Functional
7.	Ekwulobia, Aguta LGA	300	ADP	Fertilizers	Functional
	Total	5, 090			
Imo					

1.	Egbu Road, Oweri: 18 warehouses	5,940	ADP	Fertilizers	Functional
2.	Egbeada, Oweri: 6 warehouses	9,900	ADP	Organic Fertilizers	Functional
3.	ADP, Oweri Zonal office: 3 warehouses	3,000	ADP	Fertilizers & Chemicals	Functional
4.	Umuelemai Agro Services Centre	1,000	ADP	Fertilizers	Functional
5.	Ihite-Ubama	1,000	ADP	Fertilizers	Functional
6.	Okigwe Urban	330	ADP	Fertilizers	Functional
7.	Okigwe Agro Service Centre, Umubolo: 3 warehouses	2,000	ADP	Fertilizers	Functional
8.	Ihite-Oweri, Orlu	1,000	ADP	Fertilizers	Functional
9.	Awomema, Orlu	1,000	ADP	Fertilizers	Functional
10.	Umuaka Agro Service centre: 2 warehouses	2,000	ADP	Fertilizers	Functional
11.	Amaigbo Agro Service Centre	1,000	ADP	Fertilizers	Functional
12.	Uguta Agro Service Centre	1,000	ADP	Fertilizers	Functional
13.	Ihiagwa Agro Service Centre: 3 warehouses	2,000	ADP	Fertilizers	Functional
14.	Obokwe, Ngor Okpala Agro Service Centre	2,000	ADP	Fertilizers	Functional
15.	Afor Oru Mbaise Agro Service Centre	1,000	ADP	Fertilizers	Functional
	Total	34, 170			
Abia					
1.	Min. of Agric Headquarters, Umuahia: 4 warehouses	6,000	Min. of Agric	Fertilizers	Functional
2.	Min. of Agric Zonal office, Const. Crescent Rd, Abia: 2 warehouses.	3,000	Min. of Agric	Fertilizers	Functional
3.	Isikwuato L.G.A. Headquarters	1,500	Min. of Agric	Fertilizers	Functional
4.	Ilori Ikwuano Agro Service Centre	1,500	Min. of Agric	Fertilizers	Functional
5.	Bende Road, Okwoyi Ibeku	1,500	Min. of Agric	Fertilizers	Functional
6.	Isiala Ngwa Agro Service Centre	1,500	Min. of Agric	Fertilizers	Functional
	Total	15, 000			Functional
Enugu					
1.	Igboti Etiti L.G.A.	2,000	Igboti Etiti LGA	Empty	Under Maintenance
2.	Udi L.G.A.	2,000	Udi LGA	Empty	

3.	Isu-Uzo L.G.A.	2,000	Isu-Uzo LGA	Empty	
4.	Ogu L.G.A.	Not available	State Govt.	Empty	
5.	Nusuka L.G.A.	Not available	State Govt.	Empty	
6.	Mgbolo L.G.A.	Not available	State Govt.	Empty	
	Total	6, 000			
	Zonal Total		60, 260MT		

Table 7.23 presents the grain reserves situation in the South South region of Nigeria. A total reserve of 25, 620 metric tons was reserved in the zone while Delta and Edo states with reserved some 22,050, and 3,570 tons respectively. These reserves were used for fertilizers, seeds, and some manufactured goods. Despite these, a quite number of reserve facilities in Delta State was not currently in use due to the need for repairs and some renovation work. Some of them are old or have been damaged by storm, flood etc.

River state has quite several warehouses used for manufactured goods, which are currently under lease to the Ministry of Commerce and Industry. The 750 metric tons capacity reserve in the ADP premises of Auchi LGA required some renovations. Others in Benin and Irrua were functional, in good condition with fertilizers stocked in them under the watch of the Edo State government.

Table 7.23: Grain Reserved in the South South

South South					
S/No	STATE & LOCATION	CAPACITY (METRIC TONS)	OWNERSHIP	COMMODITIES STORED	REMARKS
Delta					
1.	Ibusa – ADP Premises Ibusa	6,000	ADP	Fertilizer and Seeds	Needs minor repairs
2.	Oleh – Oleh Town	6,000	ADP	Fertilizer and Seeds	Not in use. Needs minor repairs
3.	Agbarho – Agbarho Town	6000	ADP	Fertilizer and Seeds	Not in use. Needs minor repairs
4.	DAPA Warehouse – Effurun	3,000	DAPA	Fertilizer and Seeds	Needs Maintenance
5.	DAPA Warehouse- Ministry of Agric Premises, Agbor	300	DAPA	Fertilizer and Seeds	Needs renovation
6.	Abraka-Agro Service Centre	150	MOA	Fertilizer and Seeds	Good condition
7.	DAPA Store-Issele Uku	150	DAPA	Fertilizer and Seeds	Good condition
8.	Owanta-Agro Service Centre	150	MOA	Fertilizer and Seeds	Bad condition

9.	Koko-Agro Service Centre	150	MOA	Fertilizer and Seeds	Bad condition
10.	DAPA Store-Ugheli South	150	DAPA	Fertilizer and Seeds	Good condition
	Total	22, 050			
Rivers					
1.	PABOD Supplies Ltd – Trans Amadi, Port Harcourt	Capacities of warehouses (area of floors) A = 278.16M ² B= 702.90M ² C=650.00M ² D=432.90M ² E=659.00M ²	Under lease to Ministry of Commerce and Industry	Manufactured consumer goods.	Good condition
Edo					
1.	Benin - ADP Premises	1,500	Agric Extension Services	Fertilizer	Good condition
2.	Irrua – ADP Premises	750	Agric Extension Services	Fertilizer	Good condition
3.	Auchi – ADP Premises	750	Agric Extension Services	Fertilizer	Needs renovation
	Total	3, 570			
	Zonal Total		25, 620MT		

7.5.2 Federal Government Grain Reserves

The Federal Government grain reserves are located across the nation. Over years, these grain reserves have been well managed by the Federal Government under the watchful eyes of the state Ministries of Agriculture (MoAs). There are 1, 336, 000 kg of grain reserves capacity across the country, most of which are functional as at the time of the 2021 survey. However, the difficulties in mopping excess grains after harvest and monitoring the distribution and storage of these grains to each state resulted in the concession of most of the silos to some private organizations.

The results in Table 7.24 present the grain reserves and their capacities across the states. Out of the 1, 336, 000 metric tons capacity available across the country, some 686, 000 metric tons facilities in Ekiti, Cross River, Ondo, Plateau, Sokoto, Kano, Bauchi, Ogun, FCT, Kebbi, Jigawa, Kaduna, Kwara, Benue, Gombe, Oyo, Ebonyi, Akwa Ibom and Anambra were under concession to private companies. Some of the companies were Agro-Universal Consortium, Matrixville Consortium, Flour Mills, Ebonyi Agro-Industries Ltd, Neon Farms Africa Consortium and Coscharis Farms. The reserve capacity was from 11, 000 to 100, 000 metric tons.

Table 7.24: Federal Government Concession Grain Reserves

S/No.	Location	State	Capacity (MT)	Remarks
				Concession Company
1.	Ado-Ekiti	Ekiti	100,000	Agro Universal Consortium
2.	Ogoja	Cross River	25,000	Agro Universal Consortium

3.	Akure	Ondo	25,000	Agro Universal Consortium
4.	Jos	Plateau	25,000	Agro Universal Consortium
5.	Sokoto	Sokoto	25,000	Agro Universal Consortium
6.	Gaya	Kano	25,000	Agro Universal Consortium
7.	Bauchi	Bauchi	25,000	Agro Universal Consortium
8.	Ikenne	Ogun	25,000	Agro Universal Consortium
9.	Kwali	FCT	100,000	Matrixville Consortium
10.	Bulasa	Kebbi	100,000	Matrixville Consortium
11.	Jahun	Jigawa	25,000	Matrixville Consortium
12.	Kaduna	Kaduna	25,000	Matrixville Consortium
13.	Lafiagi	Kwara	11,000	Matrixville Consortium
14.	Makurdi	Benue	25,000	Flour Mills
15.	Gombe	Gombe	25,000	Flour Mills
16.	Ibadan	Oyo	25,000	Flour Mills
17.	Ezillo	Ebonyi	25,000	Ebonyi Agro-Industries Ltd
18.	Uyo	Akwa Ibom	25,000	Neon Farms Africa Consortium
19.	Igbariam	Anambra	25,000	Coscharis Farms
	Total		686,000	

The grain reserves that were not giving on concession to private companies but were still managed by the Federal Government as shown on Table 7.25. Some states' reserves were still managed by the federal government; they were: Zamfara, Imo, Borno, Bayelsa, Katsina, Adamawa, Osun, Nasarawa, Taraba, Kogi, Yobe, Niger, Edo and Kwara with a total capacity of 650, 000 metric tons of which individual capacity was from 25, 000 to 100, 000 metric tons. Most of these reserves were functional but not stocked with grains as at the time of the survey.

Table 7.25: Federal Government Non-Concession Grain Reserves

S/No.	Location	State	Capacity (MT)
1.	Gusau	Zamfara	100,000
2.	Okigwe	Imo	100,000
3.	Maiduguri	Borno	100,000
4.	Yenagoa	Bayelsa	100,000
5.	Dustima	Katsina	25,000
6.	Yola	Adamawa	25,000
7.	Ilesha	Osun	25,000
8.	Lafia	Nassarawa	25,000
9.	Jalingo	Taraba	25,000
10.	Lokoja	Kogi	25,000
11.	Damaturu	Yobe	25,000
12.	Minna	Niger	25,000
13.	Irrua	Edo	25,000

14.	Ilorin	Kwara	25,000
Total			650,000

7.6 Agro-processing plants in Nigeria

In Nigeria, Agro processing is classified into three major commodity groups: Crop processing, Livestock processing, and fish processing. Another latent area is forest wood processing. The 2021 Agricultural Performance survey captured data on existing agro processing plants, their respective locations, type of commodity being processed, operating capacity and functionality status (see Tables 7.26 to 7.31). Table 7.26 presents information on existing Agro processing plants in the North East zone.

All the processing plants in the zone were functional and the commodities being processed were crops and livestock. The crops were rice, maize, soybean sorghum, groundnut, cassava and fonio. The livestock were cattle, sheep and goat. The operating capacity of these plants ranged from 0.5 to 50 metric tons/day for crop processing plants, 250 cattle/day and 1,000 small ruminants/day for livestock processing plant, and 3 drums/day for oil mill. Bauchi state had the highest number of processing plants in the zone.

Agro-processing plants available in the North West are presented on Table 7.27. They were located in Jigawa, Kebbi, Zamfara, Katsina and Kano states. The commodities being processed were crops (rice and groundnut) and livestock (cattle and sheep). Information on operating capacity was not provided for all the states except Kebbi, which ranged from 80 to 500 metric tons/day. Also, all the agro-processing plants in the zone were functional except in Kano State as indicated on Table 7.27.

Information on processing plants in the North Central zone as presented in Table 7.28 shows that the commodities being processed are crop (Cassava, rice, melon, yam, fruits and shea-butter) and fisheries (clarias). Kogi State has the highest number of processing plants (10) followed by Niger with 6 plants while Kwara and Nasarawa has 5 plants each. The operating capacity of agro-processing plants ranged from 0.1 to 120 metric ton/day. All the plants in the North Central zone are functional except ADP Animal feed mill in Kogi State as indicated on Table 7.28.

Table 7.29 presents information on agro-processing plants in the South East zone. Information provided by Abia and Ebonyi shows that the commodity being processed by the plants in the zone are crop (cassava and rice) and fisheries. All the plants are functional and the operating capacity for fish processing plants ranged from 10,000 to 15,000 metric tons/day as shown on Table 7.29.

Table 7.26: Processing Plants in the North East Zone

State	Name of Processing Centre	Crop/livestock Processed	Location	LGA	Operating Capacity (MT/day)	Status
Adamawa	Gidan Gona	N/A	N/A	Yola North	10MT	Functional
Bauchi	Mustapha Rice Mill	Rice	Katagum	Katagum	0.8MT	Functional
	Samaru Rice Mill	Rice	Katagum	Katagum	1MT	Functional
	Bauchi meat products Co. LTD.	Cattle & small ruminant	Bauchi	Bauchi	250 cattle, 1000 sheep & goat	Functional
	Golboki Ventures	Rice	Bauchi	Bauchi	7.5MT	Functional
	Kainuwa Rice	Rice	N/A	N/A	50MT	Functional

	Mill					
	Sauki Food	Soybean, maize & sorghum	Bauchi	Bauchi	2MT	Functional
	Green Tech	Soybean, maize, rice & sorghum	Bauchi	Bauchi	1MT	Functional
	Datoyi place	Soybean, maize, rice & sorghum	Bauchi	Bauchi	0.5MT	Functional
	Flourish Food	Soybean, maize, rice & sorghum	Bauchi	Bauchi	1.5MT	Functional
	Al-Bint Food ventures	Soybean, maize, rice & sorghum	Bauchi	Bauchi	1MT	Functional
	Chime Food	Soybean, maize, rice, sorghum & Fonio	Bauchi	Bauchi	0.5MT	Functional
Gombe	KB Ganga	Rice	BCGA	Akko	20MT	Functional
	Lula Rice	Rice	Gosco	Gombe	20MT	Functional
	Siyako 2	Rice	Opposite high court	Gombe	20MT	Functional
	Mass Rice	Rice	Near GG Doma	Gombe	20MT	Functional
	Kawu G/nut oil mill	Groundnut	Industrial layout	Gombe	3drums/day	Functional
Taraba	Al-Ganzaki	Rice	Jalingo	Jalingo	25MT	Functional
	Al-umma	Rice	Jalingo	Jalingo	20MT	Functional
	Fix Flour	Maize	Wukari	Wukari	20MT	Functional
	Uten	Gari	Wukari	Wukari	15MT	Functional
Yobe	N/A	N/A	N/A	N/A	N/A	N/A

Table 7.27: Processing Plants in the North West Zone

State	Name of Processing Centre	Crop/livestock Processed	Location	LGA	Operating Capacity (MT/day)	Status
Jigawa	Kangire women oil millers	Groundnut	Birnin kudu	Birnin kudu	N/A	Functional
Kaduna	N/A	N/A	N/A	N/A	N/A	N/A
Kebbi	Labana rice mill	Rice	B/kebbi	B/Kebbi	160MT	Functional
	Wacot rice mill	Rice	Argungu	Argungu	500MT	Functional
	Lalo rice mill	Rice	Dandi	Dandi	80MT	Functional
Zamfara	Gusau central abattoir	Cattle & Sheep	Gusau	Gusau	N/A	Functional
	Taula Rice processing	Rice	Gusau	Gusau	N/A	Functional
	Dangote Rice mill	Rice	Maradun	Maradun	N/A	Functional
	Yargedda Rice plant	Rice	Talatan Mafara	Talatan Mafara	N/A	Functional
Katsina	Gobarau Rice Mill	Rice and Feed	Katsina	Katsina	N/A	Functional
	Murmushin	Rice and Feed	Dutsen-ma	Dutsen-ma	N/A	Functional

	Amariya					
	Alamin Rice Mill	Rice	N/A	N/A	N/A	Functional
Kano	Kadawa	Maize	Garun Mallam	N/A	N/A	Non-Functional
Sokoto	N/A	N/A	N/A	N/A	N/A	N/A

Table 7.28: Processing Plants in the North Central Zone

State	Name of Processing Centre	Crop/livestock Processed	Location	LGA	Operating Capacity (MT/day)	Status
Abuja, FCT	Better life domestic centre	Cassava, melon, rice	G/ladi	Gwagwalada	2MT	Functional
Benue	MIVA rice plant	Rice	Makurdi	Makurdi	N/A	N/A
	TITO plant	Fruits	Makurdi	Makurdi	N/A	N/A
	MIVA rice plant	Rice	Makurdi	Makurdi	N/A	N/A
Kogi	ADP processing centre	Cassava	Lokoja	Lokoja	10MT	Functional
	Survivor Nig. Ltd	Cassava	Oboroke	Okehi	20MT	Functional
	Rice mill processing	Rice	Lokoja	Lokoja	90MT	Functional
	Rice Processing	Rice	Kogi	N/A	120MT	Functional
	ADP feed mill	Animal feed	Lokoja	Lokoja	70MT	Non-Functional
	Kpata Rice mill	Rice	Lokoja	Lokoja	30MT	Functional
	Unicon	Cassava	Kogi	N/A	N/A	Functional
	Ajileye	Cassava	Ijumo	Kaba	N/A	Functional
	Verten	Rice	N/A	N/A	N/A	
	Ajifa	Rice	N/A	N/A	N/A	
Kwara	Ebayoto MCS	Rice	Shonga/Edu	Edu	N/A	N/A
	Taki Koro MCS	Yam	Kaiama	Kaiama	N/A	N/A
	Agbelere MCS	Cassava	Illofa	Ifelodun	N/A	N/A
	Micro Processing	Cassava	Bukare	N/A	N/A	N/A
	Ifedapo Mcs	Cassava	Osi	Osi	N/A	N/A
Nasarawa	Gem Fiat	Rice	Lafia	N/A	1.4MT	N/A
	Awe & co	Rice	Nasarawa eggon	Nasarawa eggon	1.5MT	N/A
	Akwes Eggon	Clarias	Lafia	Lafia	0.5 MT	N/A
	Heritage	Rice	Lafia	Lafia	1.5MT	N/A
	Kumazy	Rice	Keffi	Keffi	4MT	N/A
Niger	Argungu	Rice	Kotongora	Kotongora	25MT	Functional
	TungaWaraa	Shea butter	Kotongora	Kotongora	40MT	Functional
	Rahima Usman	Cassava	Kotongora	Kotongora	1MT	Functional
	Ejike	Rice	Bosso	Bosso	20MT	Functional
	Kodo shea	Shea butter	Bosso	Bosso	0.5MT	Functional
	Rice processor	Rice	Bida	Bida	3MT	Functional
	Ndakamasokolegan women	Gari	Bida	Bida	0.1MT	Functional
Plateau	Tin-Tale	Rice	Lantang North	Lantang North	50MT	Functional
	Fabariya	Rice	Jos South	Jos South	40MT	Functional
	Jalneng	Rice	Jos South	Jos South	30MT	Functional
	Dama	Rice	Shendam	Shendam	50MT	Functional

Table 7.29: Processing Plants in South East Zone

State	Name of Processing Centre	Crop/livestock Processed	Location	LGA	Operating Capacity (MT/day)	Status
Abia	Able crystal	Fish processing	Umuahia north	Umuahia north	15,000	Functional
	Nma farm	Fish processing	Umuahia south	Umuahia south	10,000	Functional
	Ofeme rice	Rice	Umuahia north	Umuahia north	5 tones	Functional
	Nkwebi	Garri	Ohafia	Ohafia	5 tones	Functional
Anambra	N/A	N/A	N/A	N/A	N/A	N/A
Ebonyi	Abakaliki mill	Rice	Abakaliki	Abakaliki	N/A	Functional
	Ikwo mill	Rice	Ikwo	Ikwo	N/A	Functional
	Iboko mill	Rice	Iboko	Izzi	N/A	Functional
	Edda mill	Rice	Osu	Afikpo	N/A	Functional
	Ohaukwu mill	Rice	Ohaukwu	Ohaukwu	N/A	Functional
	Umuezako mill	Cassava	Ngbo	Ohaukwu	N/A	Functional
Enugu	N/A	N/A	N/A	N/A	N/A	N/A
Imo	N/A	N/A	N/A	N/A	N/A	N/A

In the South West, agro-processing plants were situated in Ekiti, Lagos, Ogun, Ondo and Oyo states. All the plants were functional, and the commodities being processed were crops (cassava, rice, oil palm, vegetable, fruit and shea-butter), livestock (poultry) and fisheries as indicated on Table 6.30. The operating capacity ranged from 0.2 to 4.5 metric ton/day as at 2021.

Agro processing plants in the South South zone were in Akwa-Ibom, Bayelsa, Cross River, Delta and Edo states with operating capacities ranging from 1 to 3000 metric ton/day as presented in Table 6.31. The predominant commodities being processed in these plants were crops (Cassava, rice, yam, oil palm, coconut and plantain). Eight out of the sixty-two processing plants in the zone were not functional. Edo state had the highest number of processing plant of 39, followed by Akwa Ibom with 8 plants, Bayelsa and Cross River having 5 and 4 plants, respectively while Delta had the least of 3 plants as indicated on Table 7.31.

Table 7.30: Processing Plants in South West Zone

State	Name of Processing Centre	Crop/livestock Processed	Location	LGA	Operating Capacity (MT/day)	Status
Ekiti	Cassava Centre	Cassava	Ilumoba	Gbonyin	3MT	Functional
	Cassava Centre	Cassava	Ado	Ado	3MT	Functional
	Cassava Centre	Cassava	Ilupeju	Oye	3MT	Functional

	Cassava Centre	Cassava	Ikole	Ikole	3MT	Functional
	Cassava Centre	Cassava	Omua	Ekiti east	3MT	Functional
	Cassava Centre	Cassava	Oye	Oye	3MT	Functional
	Rice Centre	Rice	Ijero	Ijero	4.5MT	Functional
	Rice Centre	Rice	Ado	Ado	4.5MT	Functional
	Rice Centre	Rice	Irepodun	Irepodun	4.5MT	Functional
	Rice Centre	Rice	Ire	Oye	4.5MT	Functional
	Rice Centre	Rice	Ode	Gbonyin	4.5MT	Functional
	Oil Palm Centre	Oil Palm	Ilupeju	Oye	3.5MT	Functional
	Oil Palm Centre	Oil Palm	Aisegba	Gbonyin	3.5MT	Functional
	Oil Palm Centre	Oil Palm	Ilumoba	Gbonyin	3.5MT	Functional
	Oil Palm Centre	Oil Palm	Ikole	Ikole	3.5MT	Functional
Lagos	Cassava processing centre	Cassava	Araga	Epe	2MT	Functional
	Imota rice mill	Rice	Imota	Ikorodu	32MT	Functional
	Idera rice mill	Rice	Idera	Epe	2MT	Functional
	Erikorodo	Poultry	Erikorodu	Ikorodu	50 Birds/day	Functional
	Iya Afin vegetable and fruit	Vegetable	Iya Afin	Badagry	2MT	Functional
	Cassava cottage mill	Cassava	Agbowo	Epe	2MT	Functional
Ogun	Ijumo Rice	Rice	Wasinmi	Ewekoro	1MT	Functional
	Matsol Allied	Cassava	siun	Obafemi Owode	2MT	Functional
	Fish processing centre	Fish	Abeokuta	Abeokuta South	1MT	Functional
	Mab royal	Cassava	Ijebu-Ode	Ijebu-Ode	2MT	Functional
	FUNAAB Industrial Park	Cassava	Abeokuta	Abeokuta	4MT	Functional
	Freezedah Fish Processing Plant	Fish	Ewekoro	Ewekoro	1MT (Fresh Fish) 0.25MT (Dried Fish)	Functional
	Lamma Trusts Ltd	Fish	Ijebu-Ode	Ijebu-Ode	0.2MT (Dried Fish)	Functional
Ondo	Akure Cassava mill	Cassava	Akure North	Akure North	N/A	N/A
	Odigbo Cassava mill	Cassava	Odigbo	Odigbo	N/A	N/A
	Ileoluji Cassava mill	Cassava	Ileoluji	Ileoluji	N/A	N/A
	Owo Cassava mill	Cassava	Owo	Owo	N/A	N/A
	Ose Cassava mill	Cassava	Ose	Ose	N/A	N/A

	Akoko South West	Cassava	Akoko South West	Akoko South West	N/A	N/A
	Akoko North West Cassava mill	Cassava	Akoko North West	Akoko North West	N/A	N/A
	Okitipupa Cassava mill	Cassava	Okitipupa	Okitipupa	N/A	N/A
Osun	NA	NA	NA	NA	NA	NA
Oyo	Ore Ofe Cassava processing	Cassava	Igbora	Ibarapa Central	1MT	Functional
	Jesuloba cassava processing	Cassava	Iseyin	Iseyin	1MT	Functional
	Ifedawapo Cassava Processing	Cassava	Iseyin	Iseyin	1MT	Functional
	Idewure	Cassava	Sanusi	Ogo Oluwa	1MT	Functional
	Olaoluwa	Cassava	Ajaawa	Oluyole	1MT	Functional
	Agbeloba	Cassava	Ogeshaki	Ogo Oluwa	1MT	Functional
	Shea butter processing centre	Shea butter	NA	Saki west	1MT	Functional

Table 7.31: Processing Plants in South –South Zone

State	Name of Processing Centre	Crop Processed	Location	LGA	Operating Capacity (MT/day)	Status
Akwa Ibom	Cassava Processing mill	Cassava	Afia Nsit	Nsit Ibom	10MT	Functional
	Cassava Processing mill	Cassava	Ikot Ekang	Abak	5MT	Functional
	Cassava Processing mill	Cassava	Ikot Ekpan Udo	Eket	5MT	Functional
	Cassava Processing mill	Cassava	Nung Udoe	Ibeskpo/A sutan	5MT	Functional
	Rice Processing mill	Rice	Mbiabet Ikpe	Ini	200MT	Functional
	Rice Processing mill	Rice	Odoro Ikpe	Ini	75,000MT	Functional
	Coconut oil refinery	Coconut	Mkpat Enin	Mkpat Enin	3,000MT	Functional
	Cocoa Processing centre	Cocoa	Ini	Ini	-	Functional
Bayelsa	Kabala	Cassava	Kalaba	Brass	N/A	Functional

	cassava Processing centre					
	Otuegula cassava processing centre	Cassava	Otuegula	Ogbia	N/A	Functional
	Asaingbene cassava processing centre	Cassava	Asaingbene	Yenogoa	N/A	Functional
	Rice processing plant	Rice	Otueke	Ogbia	3MT	Functional
	Rice processing plant	Rice	Ndu	S. Ijaw	3MT	Functional
C/River	Ekorikul Rice mill	Rice	N/A	Abi	N/A	Functional
	Testimore Rice mill	Rice	N/A	Ogoja	N/A	Functional
	Obubra Rice mill	Rice	N/A	Obubra	N/A	Functional
	Oyibeke oil mill	Palm oil	N/A	Akampa	N/A	Functional
Delta	ADP Ibusa	Cassava	Oshimili South	Oshimili South	2MT	Functional
	Job Creation Processing, Asaba	Cassava & Yam	Oshimili South	Oshimili South	3.5MT	Functional
	Ebu Processing	Cassava & Corn	Oshimili North	Oshimili North	1.5MT	Functional
Edo	Agrotek	Crop	Ugboha	N/A	40,000MT/Yr	Functional
	Pemo	Crop	Avielle	N/A	30,000MT/Yr	Functional
	Inotech Food	Crop	Benin	N/A	1 ton/day	Functional
	Santa Maria Foods	Crop	Benin	N/A	1 ton/day	Functional
	Idaewor Farmers	Crop	Fugar	N/A	1 ton/day	Non-Functional
	Amidai Farms	Crop	Irukepe	N/A	1 ton/day	Functional
	Lentus Food	Crop	Ugo-orhionmwon	N/A	1 ton/day	Functional
	EmesomiGarri Proc.	Crop	Uzarie	N/A	1 ton/day	Functional
	Della Food	Crop	Benin	N/A	1 ton/day	Functional
	Madam Edna	Crop	Igueben	N/A	1 ton/day	Functional
	Bokesh Farms	Crop	Igarra	N/A	1 ton/day	Functional
	Believe Farms	Crop	Owan, Benin-Akure Rd	N/A	1ton/day	Functional
	Imafidon	Crop	Owan, Benin-	N/A	1ton/day	Functional

			Akure Rd			
Nosak Farms	Crop	Okhiri, Off Benin-Abraka Rd	N/A	4ton/hr	Functional	
Paul Friday	Crop	Ibillo. Akoko Edo LGA	N/A	1 ton/day	Functional	
Idele Farms	Crop	Ebelle, Igueben LGA	N/A	1 ton/day	Functional	
Madam Osagie	Crop	Igueka, Benin-Abuja Rd,	N/A	1 ton/day	Functional	
Alufah Friday Paul	Crop	Ibillo	N/A	1 ton/day	Non-Functional	
EgberanIfidon	Crop	Afuze	N/A	1 ton/day	Functional	
Mrs Mary Edna Ainangbe	Crop	Uromi-Agbor Rd	N/A	1 ton/day	Functional	
Shedrack Iribhogbe	Crop	Ekpoma	N/A	1 ton/day	Non-Functional	
Ekuoja Agro Complex	Crop		N/A	1 ton/day	Non-Functional	
Dr. Lambert Ahiobare Daniel	Crop	Benin	N/A	1 ton/day	Non-Functional	
Akhelumele Fredric	Crop	Irrua	N/A	1 ton/day	Non-Functional	
Mrs. EkiOshodi	Crop	Benin	N/A	1 ton/day	Non-Functional	
Believe Syituoyor	Crop	Benin-Akure Rd	N/A	1 ton/day	Non-Functional	
Ikalea Felix	Crop	Ekonoukhu oQtrs, Irrua	N/A	1 ton/day	Functional	
Dr. Asemota Farms	Crop	Benin-Abuja Rd	N/A	1 ton/day	Functional	
Osaretin	Crop	Ekpan-Ewoimi	N/A	1 ton/day	Functional	
Joseph Iddah	Crop	Sabongida-Ora	N/A	1 ton/day	Functional	
Helder Henry Ikhile	Crop	Sabongida-Ora	N/A	1 ton/day	Functional	
De-Ladder Establishment	Crop	Ugbowo	N/A	1 ton/day	Functional	
Elahor Farms	Crop	Ekewan Barracks	N/A	1 ton/day	Functional	
Bokesh Farms	Crop	Igarra	N/A	1 ton/day	Functional	
Oviawe Mill	Oil Palm	Ovia South West	N/A	-	Functional	
Ken Jons	Oil Palm	Ikpoba-Okha	N/A	-	Functional	
Osazemwinde Oil	Oil Palm	Ovia South West	N/A	-	Functional	
Nolderich Oil	Oil Palm	Ikpoba-Okha	N/A	-	Functional	

	Henos Mill	Oil Palm	Oredo	N/A	-	Functional
Rivers	Gream-Ana Springs	Plantain	N/A	Okrika	N/A	Functional
	Rosy Endeavour	Cassava	N/A	Ahoda	N/A	Functional
	Ego Process	Plantain & cassava	N/A	Obia/Akp or	N/A	Functional

8.0 COSTS OF PRODUCTION FOR SOME MAJOR CROPS

The costs of production per hectare for cereals, legumes, and roots tubers, fruits and vegetables crops in all States across the six (6) agro-ecological zones were captured during the survey. The crops captured were categorized into cereals and legumes (rice, maize, sorghum, wheat, millet and cowpea, soybean, groundnut, melon, Bambara nut, Beniseed), Roots and Tubers (cassava, yam, cocoyam, sweet potato, ginger, cocoa and oil palm), Fruits and Vegetables (tomatoes, pepper, plantain/banana, okra, citrus, garden egg, talinum, telfaria and leafy vegetables). The costs of producing these crops were calculated in Naira (₦) per hectare (Ha), with a percentage (+%) increase or (-%) decrease from the 2020 wet season results.

8.1 Cereals and Legumes

Cereals and legumes are generally cultivated under both rain fed and irrigated farming in Nigeria. The cereal crops captured in the 2021 APS survey are presented as follows:

North-Central Zone

In 2021 wet season, the cost of producing cereal crops was generally increased in all the States of the North-Central zone except for Nassarawa that did not record change in the cost of producing sorghum (Table 8.1). Among all the states in the zone, Kwara State recorded the highest increase in the cost of production of these crops.

North East Zone

The cost of producing maize, cowpea, groundnut, rice, sorghum, soybean, millet and beniseed was generally increased in the North East zone when compared with what it was in the 2020 wet season. Exceptionally, Yobe State reported a decrease in cost of producing all crops except for melon that did not record any change. (Table 8.2) Gombe State recorded the highest increase in the cost of producing cereal crops across the zone in 2021.

North-West Zone

The average cost of producing cereals and legumes was generally increased in the north- west zone as indicated by the percentage change between 2020 and 2021. Sokoto State recorded a remarkable percentage increase in the cost of production (Table 8.3) in 2021.

South East Zone

The average cost of producing major cereals (maize and rice) in the South East was ₦205, 000 and ₦325, 000 in 2021 as compared to ₦154, 000 and ₦249, 500 in 2020 with a percentage increase of about 33.12% for maize and 29.86% for rice respectively. (Table 8.4).

South South Zone

The costs of producing cereals and legumes in the South South zone increased in 2021 (Tables 8.5). The percentage change for cowpea in Bayelsa was pointedly high (104.55%) and remained so for maize (58.68%). The increase was due the noneavailability of production inputs, especially fertilizer.

South West Zone

Ogun State reported an increase in the cost of producing cowpea and maize with a percentage change of 37.52% and 36.01 % in 2021 when compared to 2020 respectively (Table 8.6). On the average, the zone experienced a percentage increase change of 56% for cowpea, 21% for maize and 13.11 % for rice production respectively.

Table 8. 1: Cost of Producing Cereals and Legumes in the North Central Zone (₦/Ha)

States	Maize			Melon			Cowpea			Groundnut		
	2020	2021	% change	2020	2021	% change	2020	2021	% change	2020	2021	% change
Benue	358000	NA	NA	305400	NA	NA	N/A	NA	NA	314000	NA	NA
FCT	134000	154000	12.99	N/A	NA	NA	108425	110000	1.43	106000	120000	13.21
Kogi	138000	NA	NA	NA	NA	NA	N/A	NA	NA	N/A	NA	NA
Kwara	150000	180000	16.67	N/A	NA	NA	160000	192000	16.67	N/A	NA	NA
Nasarawa	150000	160000	6.25	120000	130000	8.33	N/A	NA	NA	N/A	NA	NA
Niger	180000	200000	10	N/A	NA	NA	160000	185000	13.51	N/A	NA	NA
Plateau	132400	NA	NA	N/A	NA	NA	139400	NA	NA	211300	NA	NA
Average	177485.71	173500	-2.25	212700	13000	-93.89	141956.25	162333.33	14.35	210433.33	120000	-42.97

NA=Not Available

Table 8. 1 (continued): Cost of Producing Cereals and Legumes in the North Central Zone (₦/Ha)

States	Rice			Sorghum			Soybean			Millet			Beniseed		
	2020	2021	% change	2020	2021	% change	2020	2021	% change	2020	2021	% change	2020	2021	% change
Benue	356,300	NA	NA	352,100	NA	NA	322,000	NA	NA	N/A	NA	NA	NA	NA	NA
FCT	134,800	150,000	10.13	81,000	90,000	11.11	N/A	NA	NA	78,000	84,000	7.69	N/A	NA	NA
Kogi	410,500	450000	8.78	N/A	NA	NA	N/A	NA	NA	NA	NA	NA	105,000	NA	NA
Kwara	180,000	216000	16.67	N/A	NA	NA	N/A	NA	NA	NA	NA	NA	N/A	NA	NA
Nasarawa	250,000	260000	3.85	130000	130000	0	150,000	160000	6.67	N/A	NA	NA	120,000	130000	8.33
Niger	200,000	230000	13.04	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA
Plateau	296,300	NA	NA	N/A	NA	NA	144,200	NA	NA	174,800	NA	NA	N/A	NA	NA
Average	261,129	261,200	0.03	187,700	110,000	-41.40	205400	160000	-22.10	126,400	84000	-33.54	112,500	130000	15.56

NA=Not Available

Table 8.5 (continued): Cost of Producing Cereals and Legumes in the South South Zone (₦/Ha)

States	Rice			Soybean		
	2020	2021	% change	2020	2021	% change
Cross River	490,245	500250	2	NA	NA	NA
Edo	279,819	363763	23.08	184,960	240448	23.08
Akwaibom	NA	265000	NA	NA	NA	NA
Rivers	270,700	270800	0.04	NA	NA	NA
Average	346,921	349953.25	0.87	184,960	240448	30

NA=Not Available

Table 8.6: Cost of Producing Cereals and Legumes in the South West Zone (₦/Ha)

States	Maize			Cowpea			Rice			Soybean		
	2020	2021	% change	2020	2021	% change	2020	2021	% change	2020	2021	% change
Ekiti	270,000	280000	3.57	233,000	240000	2.92	255000	270000	5.56	258000	300000	14
Lagos	384,500	400000	3.88	N/A	NA	NA	400000	400000	0	N/A	NA	NA
Ogun	155,505	243000	36.01	156,200	250000	37.52	357735	412800	13.34	N/A	NA	NA
Ondo	150,000	160000	6.25	N/A	NA	NA	300,000	300000	0	NA	NA	NA
Osun	140,000	NA	NA	94,428	NA	NA	379,155	NA	NA	N/A	NA	NA
Oyo	155,000	180000	13.89	146,000	NA	NA	141,901	NA	NA	160000	NA	NA
Average	209,168	252,600	21	157,407	245,000	56	305,632	345700	13.11	209000	300000	43.54

NA=Not Available

8.2 Roots and tubers

Roots and tubers considered in this survey were cassava, yam, cocoyam, sweet potato, ginger, cocoa and sugar cane.

North East Zone

The root and tuber crops observed in the North East zone in 2021 were cassava, yam, cocoyam, and sweet potato. The results showed a percentage increase in the cost of production in 2021. Borno, Bauchi Adamawa, Gombe, and Yobe States did not record any data on cassava and cocoyam, sweet potato yam production cost (Table 8.7) for 2021.

North-Central Zone

The result reveals a percentage increase in the cost of producing cassava and yam in 2021 (Table 8.8). Some of the states in the zone did not report any data for cocoyam, potato and sugarcane production.

North-west zone.

Only Kebbi and Kaduna state in the North-west zone presented data on roots and tuber crops production. The results showed that cassava in Kebbi State recorded an increase in the cost of production in 2021 by 80.95% (Table 8.9). However, ginger production in Kaduna State recorded an increase of 30% in 2021.

South East Zone

There was an overall increase in the cost of production of all the crops in the South East region except in Anambra State. The cost of producing cassava increased from ₦ 113,000 in 2020 to ₦170, 000 in 2021 in Enugu and for yam ₦118, 000 in 2020 to ₦225, 000 in 2021 (Table 8.10). Enugu State reported higher changes in the production cost for yam and cassava. The mean cost changes for yam and cassava were 47.56% and 33.53%, respectively.

South South Zone

Significant reduction in the cost of production of cassava (-566%) was recorded in Bayelsa State in the South South zone as presented on Table 8.11. However, yam recorded an increase in the cost of production by 50.80% in 2021. The cost of production for cocoyam in Edo State increased from ₦700,330 in 2020 to ₦ 805,375 in 2021. There was increase of 40% and 23.03% in the costs of production for palm oil in Akwa-Ibom State and ginger in Edo State in 2021. No data was available for the cost of production of cocoa in 2021 in all the states in the South South zone.

South West Zone.

The results of the South Western zone on Table 8.12 showed that the costs of production for cassava and yam in Oyo State increased by 48%. Lagos State recorded a decrease in cost of production of cassava (-7.69%) but there was no change in the cost of production for yam. Ondo State also recorded no change in the cost of production for yam and cassava. However, the costs of production for cocoyam and sweet potato in Ogun State increase at 69.14% and 37.52%, respectively in 2021.

Table 8.7: Cost of Producing Root & Tubers in the North East Zone (₦/Ha)

States	Cassava			Yam			Cocoyam			Sweet Potato		
	2020	2021	% change	2020	2021	% change	2020	2021	% change	2020	2021	% change
Adamawa	343,230	NA	NA	308,040	NA	NA	NA	NA	NA	NA	NA	NA
Bauchi	110,000	NA	NA	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA
Borno	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA
Gombe	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA
Yobe	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA
Taraba	193000	224000	13.84	450,000	486000	7.41	120,000	125000	4	96,000	120000	20
Average	215,410	224000	3.99	379,020	486000	28.23	120,000	125000	4.17	96,000	120000	25

NA=Not Available

Table 8.8: Cost of Producing Root & Tubers in the North Central Zone (₦/Ha)

States	Cassava			Yam			Cocoyam			Sweet Potato			Sugarcane		
	2020	2021	% change	2020	2021	% change	2020	2021	% change	2020	2021	% change	2020	2021	% change
Benue	298,200	NA	NA	462,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FCT	114,400	120,000	4.67	291,150	300,000	2.95	81,000	NA	NA	N/A	NA	NA	257,000	300,000	14.33
Kogi	250,000	300000	16.67	189,000	NA	NA	NA	NA	NA	N/A	NA	NA	NA	NA	NA
Kwara	160,000	192000	16.67	180000	216000	16.67	NA	NA	NA	N/A	NA	NA	NA	NA	NA
Nasarawa	150,000	180000	16.67	800,000	900000	11.11	N/A	NA	NA	150,000	160000	6.25	N/A	NA	NA
Niger	N/A	NA	NA	200,000	255000	21.57	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA
Plateau	N/A	NA	NA	410,600	NA	NA	N/A	NA	NA	705,100	NA	NA	N/A	NA	NA
Average	194,520	123,000	-37	361,821	417750	15.46	81000	NA	NA	427,550	160000	-62.58	257000	300,000	16.73

NA=Not Available

Table 8.9: Cost of Producing Roots and Tubers in the North West Zone (₦/Ha)

States	Cassava			Ginger		
	2020	2021	% change	2020	2021	% change
Jigawa	265,873	NA	NA	NA	NA	NA
Kaduna	200,000	NA	NA	500,000	650,000	30
Kano	190,000	NA	NA	NA	NA	NA
Katsina	295,180	NA	NA	NA	NA	NA
Kebbi	105,000	190000	80.95	NA	NA	NA
Sokoto	225,000	NA	NA	NA	NA	NA
Zamfara	255,400	NA	NA	NA	NA	NA
Average	219,493	190000	-13	500,000	650,000	30

NA=Not Available

Table 8.10: Cost of Producing Roots and Tubers in the South East Zone (₦/Ha)

States	Cassava			Yam			Cocoyam			Sweet potato		
	2020	2021	% change	2020	2021	% change	2020	2021	% change	2020	2021	% change
Abia	110000	130000	15.38	120000	150000	20	NA	NA	NA	NA	NA	NA
Anambra	350000	350000	0	1500000	1500000	0	NA	NA	NA	NA	NA	NA
Ebonyi	200000	300000	33.33	700000	800000	12.5	170000	200000	17.65	185000	200000	8.11
Enugu	113000	170000	33.53	118000	225000	47.56	125000	166000	32.8	NA	NA	NA
Imo	385000	450000	14.44	480000	570600	15.88	220000	300000	36.36	100000	NA	NA
Average	231600	280000	20.90	583600	649120	11.23	171666.667	222000	29.32	142500	200000	40.35

NA=Not Available

Table 8.11: Cost of Producing Roots and Tubers and Tree Crops in the South South Zone (₦/Ha)

States	Cassava			Yam			Cocoyam			Sweet potato		
	2020	2021	% change	2020	2021	% change	2020	2021	% change	2020	2021	% change
Akwa-Ibom	250,000	275000	9.09	270,000	450000	40	N/A	380000	NA	N/A	NA	NA
Cross River	561,200	610000	8	535,800	570000	6	67,664	NA	NA	326700	330000	1.01
Delta	97,000	97150	0.15	100340	100384	0.04	N/A	NA	NA	N/A	NA	NA
Edo	232,603	302383	23.08	1,183,330	1538320	23.08	700,330	805379	13.04	N/A	NA	NA
Bayelsa	3,000,200	450300	-566.27	370000	752000	50.80	N/A	NA	NA	N/A	NA	NA
Rivers	440,000	442100	0.48	2,240,700	NA	NA	N/A	NA	NA	N/A	NA	NA
Average	763,501	362822.1667	-52.48	783,362	682140.8	-12.92	383,997	592689.5	54.35	326700	330000	1.01

NA=Not Available

Table 8.11: (continued) Cost of Producing Roots and Tubers and Tree Crops in the South South Zone (₦/Ha)

States	Cocoa			Oil Palm			Ginger		
	2020	2021	% change	2020	2021	% change	2020	2021	% change
Akwa-Ibom	N/A	NA	NA	300,000	500000	40	NA	NA	NA
Cross River	429,510	NA	NA	349570	NA	NA	NA	NA	NA
Delta	N/A	NA	NA	N/A	NA	NA	NA	NA	NA
Edo	843,330	NA	NA	N/A	NA	NA	843330	1096329	23.08
Bayelsa	N/A	NA	NA	N/A	NA	NA	NA	NA	NA
Rivers	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA
Average	636420	NA	NA	324,785	500000	53.95	843,330	1096329	30

NA=Not Available

Table 8.12: Cost of Producing Roots and Tubers and Tree Crops in the South West Zone (₦/Ha)

States	Cassava			Yam			Cocoyam		
	2020	2021	% change	2020	2021	% change	2020	2021	% change
Ekiti	255,000	260000	1.92	880,000	910000	3.30	380,600	400000	4.85
Lagos	350,000	325000	-7.69	250000	250000	0	N/A	NA	NA
Ogun	209,895	292400	28.22	812,800	970000	16.21	144,105	467000	69.14
Ondo	250,000	250000	0	350,000	350000	0	N/A	NA	NA
Osun	155,000	NA	NA	155,000	NA	NA	N/A	NA	NA
Oyo	152,000	225000	48.00	180,000	350000	48.57	N/A	NA	NA
Average	228,649	675480	195.42	437,967	566000	29.23	262,353	433,500	65

NA=Not Available

Table 8.12: (continued) Cost of Producing Roots and Tubers and Tree Crops in the South West Zone (₦/Ha)

States	Sweet potato			Cocoa			Oil Palm		
	2020	2021	% change	2020	2021	% change	2020	2021	% change
Ekiti	N/A	NA	NA	260,000	265000	1.89	430,000	450000	4.65
Lagos	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA
Ogun	156,200	250000	37.52	N/A	NA	NA	N/A	NA	NA
Ondo	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA
Osun	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA
Oyo	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA
Average	156,200	250000	60.05	260,000	265,000	1.92	430,000	450000	4.65

NA=Not Available

8.3 Fruits and Vegetables

The survey captured data on the production costs of fruits and vegetable produced in the wet season of 2020 and 2021 across the nation. The results are presented as follows:

North East Zone

On Table 8.13, only one state reported the production of two crops in the North East zone. Majorly, Taraba State reported an increase in the cost of production of fruit and vegetable crops produced in the State. Noteworthy is the increase change in the cost of production of Tomato from ₦130,000 in 2020 to ₦170,000 in 2021 giving a percentage change of about 30.77%. Similarly, okra recorded an increase change from ₦110,000 in 2020 to ₦146,000 in 2021 giving a percentage change of 32.73%.

South East Zone

Results on Table 8.14 showed that only two states out of six reported the production of two types of crops in the zone in 2021. Majorly, Imo State reported an increase in the cost of production for all the fruit and vegetable crops in 2021. Noteworthy is the increase in the cost of production of okra from ₦200,000 in 2020 to ₦280,000 in 2021 giving a percentage change of about 40%. Ebonyi State reported an increase in the cost of production of pepper from ₦20,000 in 2020 to ₦40,000 in 2021 giving a percentage change of 100%.

South West Zone

In the South West zone, Lagos and Ondo states did not record any change in the cost of production of tomato from 2020 and 2021 as presented on Table 8.15. Similarly, Ekiti State recorded no change in the cost of production of citrus from 2020 and 2021. However, a marginal decrease of -1.46% in the cost of production of leafy vegetables was reported in Lagos State in 2021.

South South Zone

In the South South zone, the average cost of production of tomato, okra and telfaria recorded a marginal percentage increase of 0.1%, 0.02%, and 1.01%, respectively. The detail is presented on Table 8.16. However, the average cost of production of talinum and garden egg increased by 4.17% in 2021. The cost of production for plantain in Akwa-Ibom State increased significantly from ₦190,000 in 2020 to ₦446,000 in 2021 giving a remarkable increase of 134.74%.

Table 8.13: Cost of Producing Fruits and Vegetables in the North East Zone (₦/Ha)

States	Tomato			Okra		
	2020	2021	% change	2020	2021	% change
Adamawa	NA	NA	NA	NA	NA	NA
Bauchi	NA	NA	NA	NA	NA	NA
Borno	NA	NA	NA	NA	NA	NA
Gombe	NA	NA	NA	NA	NA	NA
Yobe	NA	NA	NA	NA	NA	NA
Taraba	130000	170000	30.77	110,000	146000	32.73
Average	130,000	170000	30.77	110,000	146000	32.73

NA=Not Available

Table 8.14: Cost of Producing Fruits and Vegetables in the South East Zone (₦/Ha)

States	Tomato			Okra			Pepper			Pineapple			Plantain		
	2020	2021	% change	2020	2021	% change	2020	2021	% change	2020	2021	% change	2020	2021	% change
Ebonyi	N/A	NA	NA	N/A	NA	NA	20,000	40000	100	N/A	NA	NA	N/A	NA	NA
Imo	130,000	NA	NA	200000	280000	40	130,000	NA	NA	95,000	NA	NA	100,000	NA	NA
Average	130000	NA	NA	200000	280000	40	75,000	40000	-46.67	95,000	NA	NA	100,000	NA	NA

NA=Not Available

Table 8.15: Cost of Producing Fruits and Vegetables in the South West Zone (₦/Ha)

States	Tomato			Okra			Leafy Vegetables		
	2020	2021	% change	2020	2021	% change	2020	2021	% change
Ekiti	258,000	300000	14	198,500	210000	5.48	NA	NA	NA
Lagos	200,000	200000	0	N/A	NA	NA	206000	203000	-1.46
Ogun	N/A	461000	NA	27,930	NA	NA	N/A	NA	NA
Ondo	300,000	300000	0	NA	NA	NA	N/A	NA	NA
Oyo	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA
Aver.	252,667	315,250	24.77	113,215	210000	85.49	206,000	203000	-1.46

NA=Not Available

Table 8.15: (continued) Cost of Producing Fruits and Vegetables in the South West Zone (₦/Ha)

States	Pepper			Plantain			Citrus		
	2020	2021	% change	2020	2021	% change	2020	2021	% change
Ekiti	N/A	NA	NA	352,000	362000	2.76	400,000	400000	0
Lagos	200000	200000	0	N/A	NA	NA	N/A	NA	NA
Ogun	N/A	NA	NA	448,420	NA	NA	N/A	317500	NA
Ondo	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA
Oyo	140,000	NA	NA	N/A	NA	NA	N/A	NA	NA
Aver.	170000	200000	17.65	400,210	362000	-9.55	400000	358750	-10.31

NA=Not Available

Table 8.16: Cost of Producing Fruits and Vegetables in the South South Zone (₦/Ha)

States	Tomato			Okra			Pepper			Plantain		
	2020	2021	% change	2020	2021	% change	2020	2021	% change	2020	2021	% change
Akwa-Ibom	N/A	NA	NA	N/A	NA	NA	N/A	NA	NA	190000	446000	134.74
Delta	142800	143000	0.14	101000	101070	0.07	97400	97600	0.21	N/A	NA	NA
Edo	N/A	NA	NA	289100	289101	0.00	N/A	NA	NA	404700	526110	30
Rivers	N/A	NA	NA	N/A	N/A	N/A	N/A	NA	NA	630500	630600	0.02
Cross River	NA	NA	NA	NA	NA	NA	219520	224000	2.04	NA	NA	NA
Bayelsa	NA	NA	NA	NA	NA	NA	NA	NA	NA	320000	360000	12.5
Average	142800	143000	0.14	195050	195085.5	0.02	158460	48801.02041	-69.20	386300	490677.5	27.02

NA=Not Available

Table 8.16: (continued) Cost of Producing Fruits and Vegetables in the South South Zone (₦/Ha)

States	Telfaria			Talinum			Garden Egg		
	2020	2021	% change	2020	2021	% change	2020	2021	% change
Akwa-Ibom	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delta	NA	N/A	NA	NA	NA	NA	NA	NA	NA
Edo	NA	NA	NA	NA	NA	NA	NA	NA	NA
Rivers	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cross River	215820	218000	1	129600	135000	4.17	139200	145000	4.17
Bayelsa	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average	215820	218000	1.01	129600	135000	4.17	139200	145000	4.17

Cost of Production of Some Major Commodities (/Ha) Across the Zones

Generally, the cost of production for all commodities across the zones increased in year 2021. This might be attributed to the high cost and inadequate inputs as well as security challenges. The detail of the costs of producing for the major commodities across the country are presented herein.

1. Maize

The cost of producing of one hectare of maize in the South South zone was the highest in the country in 2021. The data revealed an increment in the production cost of maize in 2021 across all the zones except in North East and North-Central zone. The results could be influenced by the reduction in terrorist attacks on communities as at the time this survey was carried out.

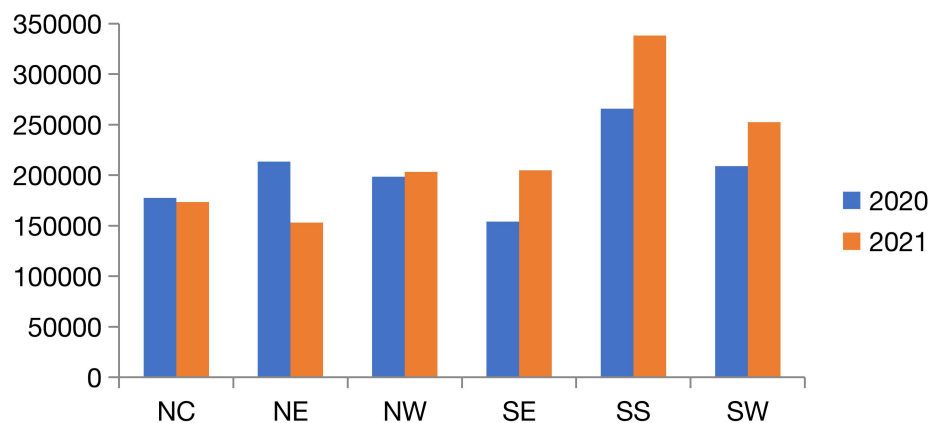


Figure 8.1: Cost of Production of Maize (/Ha) Across the Zones

2. Cowpea

There was a general increase in the cost of cowpea production per hectare across all the zones except in North East zone. However, the cost of production in the South South zone was the highest. No data was reported for the production cost of cowpea in the South East zone in 2021.

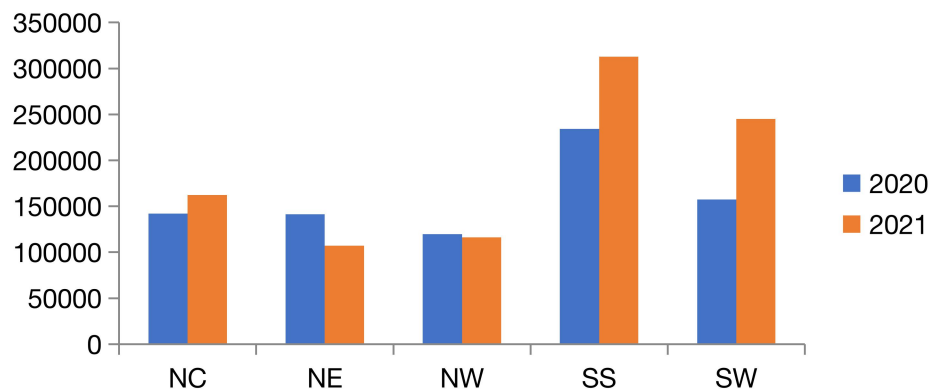


Figure 8.2: Cost of production of cowpea (/Ha) across the zones

3. Rice

There was an overall increase in the production cost of rice per hectare across all the zones in 2021 apart from the North-Central zone where the cost was the same in 2020 and 2021. However, the cost of production in the South South and the South West was same for 2021.

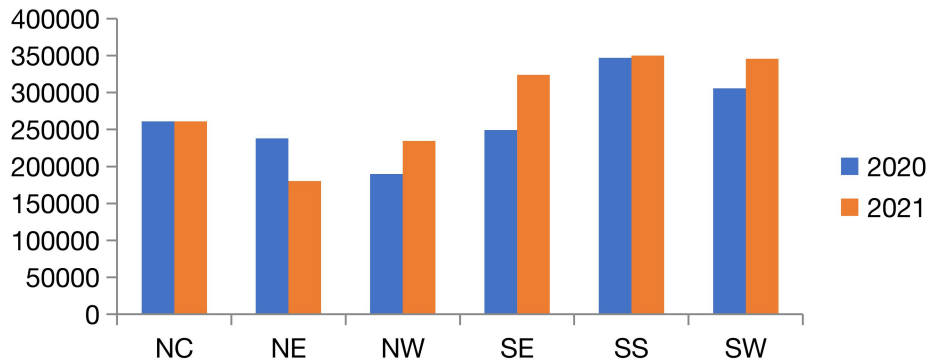


Figure 8.3: Cost of production of rice (/Ha) across the zones

4. Cassava

The results revealed an increase in the production cost of cassava per hectare in the South West, North East and the South East; though there was a decrease in the cost in the North-Central, the North-West and the South South zones in 2021.

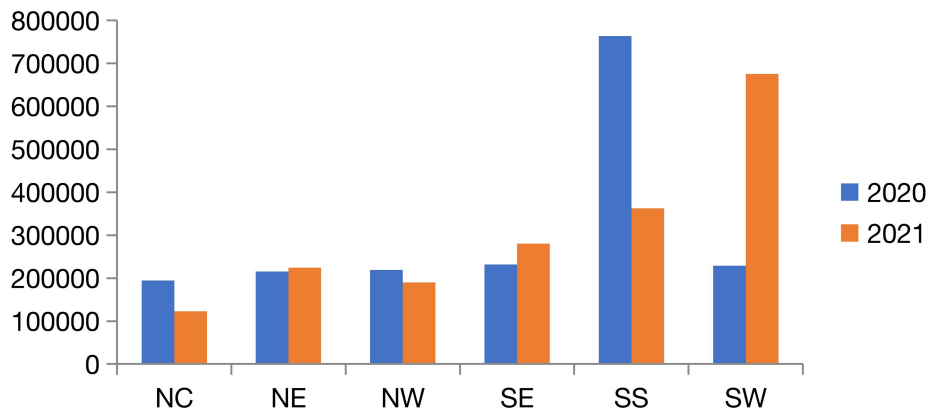


Figure 8.4: Cost of production of cassava (/Ha) across the zones

5. Yam

There was an overall increase in the cost of yam production per hectare across the zones except in South South zone where there was a decrease in the cost in 2021. Meanwhile, the South South zone remained the most expensive region for yam production in 2021. This could be attributed to the thick forest in the zone and the idea of cultivating a virgin land each planting season.

No data on yam production cost was recorded for the North-West zone in 2021.

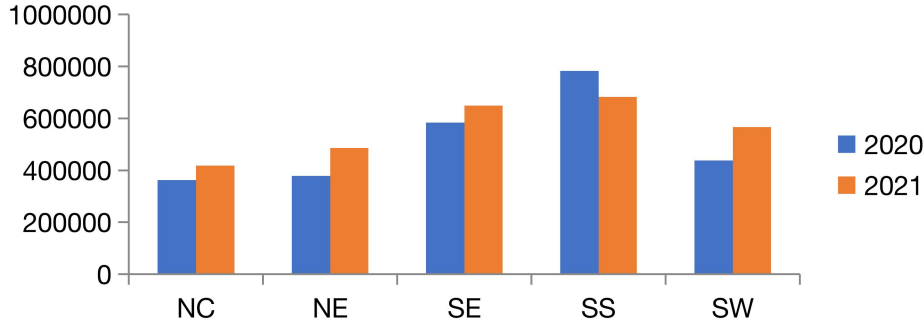


Figure 8.5: Cost of Production of Yam (/Ha) Across the Zones

6. Sweet Potato

The production costs of sweet potato per hectare increased in 2021 in five zones but a decrease in the cost of production was reported in the North-Central zone. Among the five zones with increase in the cost of production in 2021, the South South zone reported the highest cost while the North East zone reported the lowest. No data was available for sweet potato production in the North-West zone in 2021 even though the zone is known for considerable sweet potato production.

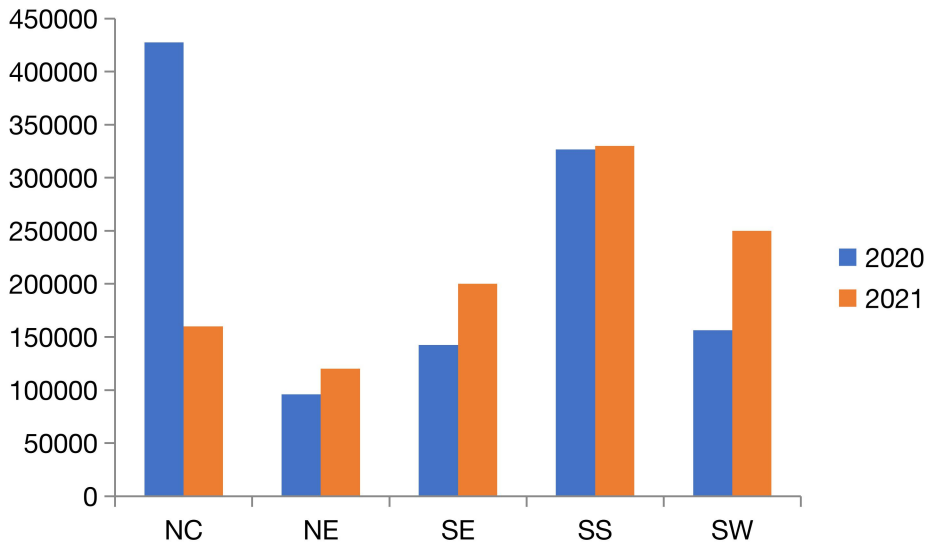


Figure 8.6: Cost of production of sweet potato (/Ha) across the zones

7. Cocoyam

There was an increase in the cost of producing cocoyam per hectare across all the zones. The cost of producing cocoyam in the South South zone was the highest (₦592,689.00) while the lowest cost was recorded the North East zone (₦125,000) in 2021. No data was recorded for the North-Central for the same year.

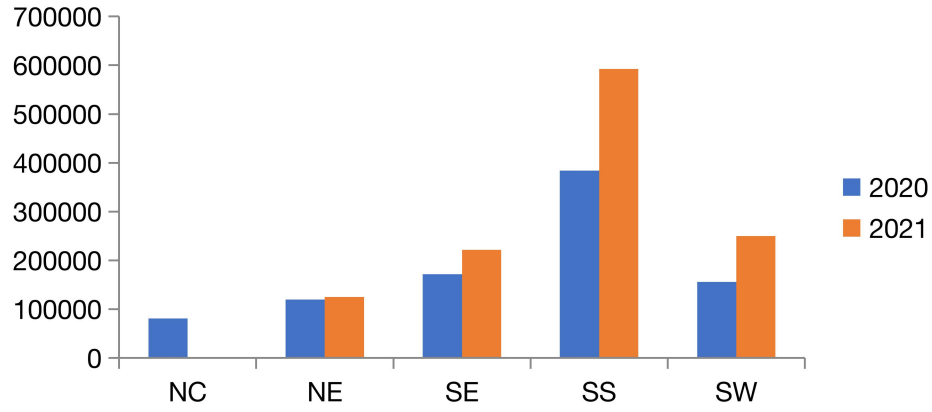


Figure 8.7: Cost of production of cocoyam (/Ha) across the zones

9.0. FOOD COMMODITY PRICES

This section reports the prices of major food commodities across the country. Respective commodity prices in the beginning of the year (January) and middle of the year (July) were collected for 2021, then compared with that of 2020 of same periods. The tables for commodity prices are presented according to the 6 geopolitical zones of the country for ease of comparison. Percentages are computed to compare prices of each commodity in the zones.

9.1. Prices of Maize, Millet, Sorghum and Milled Rice

Nigerians, in 2021 witnessed a significant increase in almost all food commodities compared to prices of the previous year. Records from all the states showed a continuous increase in cereal prices in 2021 against that of 2020. Although seasonal price hikes are a common phenomenon in Nigeria, the increase in the reference year was claimed to be very disturbing to farmers and consumers. In the North-western zone, the increase in food price was aggravated due to the continuous insecurity challenges. The demand for agricultural commodities was inelastic, as such, there was a continuous demand for about four food items (maize, millet, sorghum and milled rice) by households; an indication of a sharp increase in the prices. The market prices for maize, millet, sorghum and milled rice were compared for January 2020/2021 and July 2020/2021. Accordingly, as a seasonal trend, the national average cereal prices continue to increase across the six zones (Table 9.1 – 9.6).

Major markets in the country experienced higher prices for maize increase in January and July in 2021. Kebbi recorded the highest price increase of 215.7% in January, Kaduna recorded 41.7 in July in the North-western zone, while Borno recorded 80% in January and Yobe recorded the highest price increase of 191.7% in July in the North East. In the North-Central zone, highest prices were recorded in the FCT with 147.5% in January and 38.9% in July. In the South South, the highest price in maize was recorded in Bayelsa at 148% in January and 23.8% for Edo July. There was 150% and 70.4% increase recorded in Imo state in January and July respectively. In the South west, 156.69% and 114.71% increase was recorded in Ekiti State in January and July respectively.

Furthermore, there was a significant increase in the price of maize across all zones. The highest percentage mean price variation for maize was recorded in the North West zone in January and in the North East zone in July. The lowest percentage mean price variation was recorded in the North East zone in January and in the South South zone in July.

On the other hand, millet recorded a surge in prices in all the producing zones. Highest prices were recorded in Jigawa (131.5%), Yobe (109%) and the FCT (71) in the NW, NE and NC respectively. The highest percentage mean price variation for millet was recorded in the North East and the North West zones while the lowest mean increase was recorded in the South West zone. The highest increase in sorghum prices was reported in the North West and North East zones. Jigawa and Yobe states recorded the highest price increase of 177.8% and 154.4% at a selling price of ₦222/Kg and ₦280/Kg in January and July respectively. The highest percentage mean price variation for sorghum price was recorded in the North West while the lowest mean increase was recorded in the North East in January. Nevertheless, in July the highest mean price variation was recorded in the North East and the lowest mean price variation was recorded in the North-Central.

Kwara and Delta states recorded highest percentage in January while Imo and Abia states recorded the highest percentage in July for milled rice price in 2021. Notably, all states in the country reported a significant increase in the price of milled rice. The highest percentage mean price variation for milled rice was recorded in the North Central zone with (79%) in January and South West in July with (56.1%) while the lowest percentage mean price variation was recorded in the

North West in January with (24.6%) and in the South South in July with (7.48%).

Table 9.5: Commodity Prices (N/Kg) in South East Zone

States	Sorghum						Millet						Maize						Milled Rice						
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices			January Prices			July Prices			
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% change	
Enugu	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	116	NA	NA	225	NA	NA	NA	NA	360	NA	NA	460	NA
Ebonyi	143	NA	NA	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	380	NA	NA	320	NA	312	620	98.71	458	650	41.92	
Abia	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	110	250	127.27	225	350	55.56	348	700	101.14	468	850	81.62	
Imo	141	NA	NA	215	NA	NA	180	250	38.89	256	365	42.57	112	280	150	223	380	70.4	348	580	66.67	465	850	82.79	
Anambra	NA	NA	NA	NA	NA	NA	NA	256	NA	NA	372	NA	113	NA	NA	218	NA	NA	320	500	56.25	460	500	8.7	
Z. Mean	142	NA	NA	217.5	NA	NA	180	253	38.89	256	368.5	42.57	112.8	303.33	138.64	222.8	350	62.98	332	552	80.69	462	662	53.76	

Table 9.6: Commodity Prices (N/Kg) in South South Zone

State	Sorghum						Millet						Maize						Milled Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Akwa-Ibom	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	117	220	88.03	226	245	8.41	370	700	89.19	482	523	8.51
Bayelsa	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	120	298	148	235	253	7.66	375	543	44.80	484	500	3.31
Cross-River	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	118	196	66.78	225	263	16.89	368	450	22.28	480	508	5.83
Delta	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	114	220	92.98	213	230	7.98	353	761	115.58	478	491	2.72
Edo	143	NA	NA	220	NA	NA	147	220	49.66	225	250	11.11	113	250	121	210	260	23.80	350	700	100	470	550	17.02
Rivers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	125	NA	NA	235	NA	NA	378	NA	NA	487	NA	NA
Zonal Mean	143	NA	NA	220	NA	NA	147	220	49.66	225	250	11.11	117	280	103.47	224	250	12.95	365	630	74.37	480	514	7.48

9.2. Prices of Cowpea, Ginger, Groundnut and Benniseed

Market prices for major legumes (cowpea, ginger, groundnut and benniseed) in January 2020/2021 and July 2020/2021 are computed and compared on (Table 9.7 – Table 9.12). Similar results were obtained as the case with cereals, that is, there were notable increase in prices across all the zones in 2021.

The world production of cowpea is estimated at about 8.9 million tons per year. Over 95% of the global production is in Africa, with Nigeria as the world's largest producer and consumer. Despite all these positive features, there was severe increase in the price of cowpea particularly in July 2021 when compared with prices in 2020. Nasarawa State recorded a 102% increase, Bauchi (130%), Kebbi (131%), Imo (128.75%), Delta (52%). Lagos State's record of 131.09% was the highest percentage change in the NC, NE, NW, SE, SS and SW respectively in 2021. These high increase in prices could be attributed to climate change or the abrupt cessation of rainfall in the previous year which seriously affected cowpea output. The highest percentage mean price variation for cowpea was recorded in the South East zone at 114.14% while the lowest mean of 20.8% was recorded in the South West zone.

Nigeria produces almost 523,000 tonnes of the world ginger at 14% share with a projection of consistent growth at 6% per annum. Ginger is mainly grown in the Northern part of the country especially in the southern axis of Kaduna State. The records of the market prices of ginger were very high Bauchi and Imo states with a selling price of ₦650/Kg and ₦900/Kg (the highest) in Nigeria in 2021. Kaduna State recorded ₦876/Kg as the selling price for ginger in 2021.

The highest increase in groundnut prices (above 100%) was reported in Imo (134.7%), Abia (134.8), Osun (121.26%) states. Edo and Cross River states had the lowest price increase of 3.9% and 2.27%. For the month of July 2021, the lowest percentage mean price variation for groundnut was recorded in the South South zone while the highest percentage mean price variation was reported in the South East zone.

Nigeria produces about 18.2% of Africa's benniseed output and by implication the second largest producer in Africa after Sudan. Data collected indicated that the lowest price increase recorded in the NE was in Yobe (25%), in the NC it was in the FCT (67%), for the SE, it was in Ebonyi (28.03%) and in the NW, it was in Zamfara at 5.2%. The highest percentage mean price variation for beniseed was recorded in the North East zone in 2021. Price of beniseed was not available for all the states in the South West and the South- South zones.

9.3. Prices of Beef, Chevron (Goat meat) and Mutton

Comparison of market prices for beef, goat meat and mutton were made for January 2020/2021 and July 2020/2021. Comparing July 2020 and July 2021, the prices of commodities such as beef, chevon and mutton prices increased considerably across all the states and FCT (Table 9.13 – Table 9.18).

The highest increase in price for beef in the NC was 25%, in the NE, it was 17% while in the NW it was 56%. While in the SS 56.25% was recorded, for the SE, 78.57% increase was reported, and in the SW a 130.76% was observed. The highest percentage mean price variation for beef was recorded in the South East zone while the lowest was recorded in the North East zone.

Compared to July 2020, the prices of chevon (goat meat) increased at 75% and 118.75% in the FCT and Abia State respectively while the price in Yobe State was as low as 5%. In Anambra State there was a decrease in price at 7.69%. The highest percentage mean price variation for goat meat was recorded in the South East and South West zone while the lowest was recorded in the North East zone in 2021.

The price of mutton increased in 2021 by 67% and 71% in Sokoto State and the FCT compared to the 2020 price. Kebbi State recorded the lowest increase in price in the entire northern states while the lowest price increase percentage recorded for the southern states was in Ebonyi State at 33.3%. The highest percentage mean price variation for mutton was recorded in the North Central and South South zones. Price for mutton was not recorded in the South West zones in 2021.

Table 9.13: Commodity Prices (N/Kg) in North-Central Zone

	Beef						Goat Meat						Mutton					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Benue	90	175	94.9	155	212	36.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kogi	1100	2000	81.8	1300	2500	92.3	1000	NA	NA	1100	NA	NA	NA	NA	NA	NA	NA	NA
Nasarawa	343	NA	NA	NA	NA	NA	1300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FCT	1400	1800	28.6	1500	2400	60.0	1400	1800	28.6	1400	2400	71.4	1400	1800	28.6	1400	2400	71.4
Plateau	NA	NA	NA	NA	NA	NA	1300	1310	0.8	1400	1500	7.1	NA	NA	NA	NA	NA	NA
Niger	1000	1271	7.1	1100	1350	22.7	850	881	3.6	1000	1200	20.0	1000	NA	NA	1000	NA	NA
Kwara	1100	1200	9.1	1200	1300	8.3	800	1000	25	800	1000	25.0	NA	NA	NA	NA	NA	NA
Taraba	1200	1236	3.0	1200	1325	10.4	NA	NA	NA	NA	NA	NA	1000	1200	20	1100	1300	18.2
Mean	1175.0	1376.7	11.9	1250.0	1593.8	25.4	1087.5	1247.6	14.5	1150.0	1525.0	30.9	1133.3	1500.0	24.3	1166.7	1850.0	44.8

Table 9.14: Commodity Prices (N/Kg) in North Eastern Zone

State	Beef						Goat Meat						Mutton					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Borno	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Yobe	900	900	0	950	1000	5.3	900	950	5.6	950	1000	5.3	NA	NA	NA	NA	NA	NA
Bauchi	1300	1400	7.7	1300	1900	46.2	1100	1300	18.2	1200	1400	16.7	850	1000	17.64706	950	1423	49.8
Gombe	400	400	NA	600	600	NA	1200	1300	8.3	1500	1700	13.3	800	1100	37.5	1000	1300	30.0
Adamawa	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mean	866.7	900.0	3.8	950.0	1166.7	17.1	1066.7	1183.3	10.7	1216.7	1366.7	11.8	825.0	1050.0	27.6	975.0	1361.5	39.9

Table 9.15: Commodity Prices (N/Kg) in North-Western Zone

	Beef						Goat Meat						Mutton					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Jigawa	1200	1400	16.7	1300	2000	53.8	1200	1300	8.3	800	1400	75.0	1200	1300	8.3	1000	1500	50.0
Zamfara	NA	1600	NA	NA	2000	NA	NA	1300	NA	NA	1500	NA	NA	NA	NA	1600	NA	NA
Kaduna	1200	1700	41.7	1300	2000	53.8	1200	1300	8.3	1200	1500	25.0	1200	1400	66.7	1200	1500	25.0
Katsina	1200	1700	41.7	1300	2000	53.8	1200	1300	8.3	1200	1400	16.7	1200	1300	0.0	1200	1600	33.3
Kebbi	1200	1800	50.0	1300	2000	53.8	1200	1300	8.3	1200	1500	25.0	1300	1500	69.2	1300	1500	15.4
Sokoto	1200	1700	41.7	1200	2000	66.7	800	1400	75.0	900	1500	66.7	900	1300	42.6	900	1500	66.7
Kano	1200	1500	25.0	1300	2000	53.8	1100	1400	27.3	1200	1500	25.0	1200	1400	-41.7	1200	1500	25.0
Mean	1200.0	1628.6	36.1	1283.3	2000.0	56.0	1116.7	1328.6	22.6	1083.3	1471.4	38.9	1166.7	1366.7	24.2	1133.3	1528.6	35.9

Table 9.16: Commodity Prices (N/Kg) in South Western Zone

States	Beef						Goat Meat					
	January Prices			July Prices			January Prices			July Prices		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Osun	1500.00	1600.00	6.67	1600.00	2500.00	56.25	NA	NA	NA	NA	NA	NA
Oyo	1600.00	NA	NA	1600.00	NA	NA	1600.00	NA	NA	1600.00	NA	NA
Ekiti	1400.00	1400.00	0.00	1400.00	2000.00	42.86	1700.00	1700.00	0.00	1700.00	2400.00	41.17
Ondo	1500.00	1800.00	20.00	1600.00	2000.00	25.00	1300.00	1300.00	0.00	1500.00	1500.00	0.00
Ogun	1350.00	1800.00	33.33	1400.00	1900.00	35.71	1350.00	1800.00	33.33	1400.00	2000.00	42.86
Lagos	1200.00	1300.00	8.33	1300.00	3000.00	130.76	1200.00	1100.00	9.09	1200.00	2000.00	66.67
Z. Mean	1425.00	1580.00	13.67	1483.00	2280.00	58.12	1430.00	1431.00	10.61	1480.00	1975.00	37.67

Table 9.17: Commodity Prices (N/Kg) in South East Zone																		
	Beef						Goat Meat						Mutton					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
States	2020	2021	% Change	2020	2021	%	2020	2021	%	2020	2021	%	2020	2021	%	2020	2021	%
						Change			Change			Change			Change			Change
Enugu	1700	2500	47.06	1700	3000	76.47	1200	NA	NA	1400	NA	NA	NA	NA	NA	NA	NA	NA
Ebonyi	1500	2000	33.33	1500	2200	46.67	1400	2000	42.86	1400	2200	50	1500	1800	20	1500	2000	33.33
Abia	1600	2000	25	1800	3000	66.67	1500	3000	100	1600	3500	118.75	NA	NA	NA	NA	NA	NA
Imo	1600	2000	25	1700	2150	26.47	1600	2050	28.13	1600	2000	25	NA	NA	NA	NA	NA	NA
Anambra	1200	2500	108.33	1400	2500	78.57	1200	1200	0	1300	1200	-7.69	1200	NA	NA	1200	NA	NA
Z.onal	1520	2200	47.74	1620	2570	58.97	1486.7	2062.5	42.75	1553.3	2225	46.52	1350	1800	20	1573.3	2000	33.33
Mean																		

Table 9.18: Commodity Prices (N/Kg) in South South Zone

State	Beef						Goat Meat						Mutton					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Akwai	1400.00	1100.00	21.42	1500.00	1200.00	20.00	1400.00	1400.00	0.00	1600.00	1500.00	6.25	NA	NA	NA	NA	NA	NA
Bayelsa	1200.00	1050.00	12.50	1300.00	1350.00	3.85	1200.00	1100.00	8.33	1200.00	1366.50	13.88	NA	NA	NA	NA	NA	NA
Cross-River	1500.00	2000.00	66.67	1600.00	2500.00	56.25	1500.00	2200.00	46.67	1500.00	2500.00	66.67	NA	NA	NA	NA	NA	NA
Delta	NA	2000.00	NA	NA	2500.00	NA	1800.00	2250.00	25.00	1900.00	2350.00	23.68	NA	NA	NA	NA	NA	NA
Edo	1300.00	1800.00	38.46	1500.00	2000.00	33.33	1500.00	2000.00	33.33	1800.00	2500.00	38.89	1800.00	2400.00	33.33	1800.00	2600.00	44.44
Rivers	1700.00	NA	NA	2100.00	NA	NA	2200.00	NA	NA	2300.00	NA	NA	NA	NA	NA	NA	NA	NA
Zonal Mean	1360.00	1590.00	34.76	1480.00	1600.00	28.36	1600.00	1790.00	22.67	1716.70	2043.30	29.87	1800.00	2400.00	33.33	1800.00	2600.00	44.44

9.4. Prices of Fresh, Dry and Frozen Fish

Market prices of fresh, dry and frozen fish were made for January 2020/2021 and July 2020/2021. Generally, there was price increase for the commodities across all zones in the country (Table 9.19 to Table 9.24).

The highest increase in price for fresh fish was recorded in Cross River State (75%) and in Ekiti State at 66.67%. Ondo State recorded the lowest increase in price by 11.76%. The highest percentage mean price variation for fresh fish was recorded in the North West while the lowest mean increase was recorded in the South East zone in 2021 in Nigeria.

The highest increase in price of dry fish was recorded in Ebonyi state (125%), while Bayelsa State recorded the lowest increase in price by 3.85%. The highest percentage mean price variation for dry fish was recorded in the North Central zone while the lowest mean increase was recorded in the North East and South South zones in 2021. The highest increase in price of frozen fish was recorded in Ondo State (84.62%), FCT (88.9%), Yobe (108%) and Anambra (185.71%) while Ogun State recorded the lowest increase in price at 5.59%. The highest percentage mean price variation for frozen fish was recorded in the South East zone while the lowest mean increase was recorded in the South South zone in Nigeria in 2021.

Table 9.19: Commodity Prices (N/Kg) in North-Central Zone

State	Fresh Fish						Dry Fish						Frozen Fish					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Benue	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kogi	850	NA	NA	1000	NA	NA	1300	3567	174.4	1750	3700	111.4	NA	NA	NA	NA	NA	NA
Nasarawa	NA	NA	NA	NA	NA	NA	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FCT	800	1000	25	900	1200	33.3	1600	3000	87.5	1500	3500	133.3	850	1500	76.5	900	1700	88.9
Plateau	NA	NA	NA	NA	NA	NA	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Niger	650	934	43.8	950	987.24	3.9	1300	1400	7.7	1400	1800	28.6	NA	NA	NA	NA	NA	NA
Kwara	850	1200	41.2	900	1300	44.4	1500	2000	33.3	1600	2000	25	800	1000	25	900	1000	11.1
Taraba	1500	1800	20	1600	1900	18.75	NA	NA	NA	NA	NA	-	1600	1850	15.625	1600	2000	25
Mean	950.0	1233.6	32.5	1087.5	1346.8	25.1	1275.0	2133.3	42.8	1500.0	2433.3	62.3	1083.3	1450.0	39.0	1133.3	1566.7	41.7

Table 9.20: Commodity Prices (N/Kg) in North Eastern Zone

State	Fresh Fish						Dry Fish						Frozen Fish					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Borno	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Yobe	1050	1100	4.8	1150	1200	4.3	NA	NA	NA	NA	NA	NA	1000	1200	20	1200	2500	108.3
Bauchi	550	600	9.1	650	1000	53.8	800	1200	50	1000	1400.5	40.1	650	850	30.8	600	700	16.7
Gombe	1000	1150	15.0	1200	1200	NA	900	1000	11.1	900	1400	55.6	800	1200	50	2000	2500	25.0
Adamawa	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zonal Mean	866.7	950.0	9.6	1000.0	1133.3	19.4	850.0	1100.0	30.6	950.0	1400.3	47.8	816.7	1083.3	33.6	1266.7	1900.0	50.0

Table 9.21: Commodity Prices (N/Kg) in North-Western Zone

State	Fresh Fish						Dry Fish						Frozen Fish					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Jigawa	700	1000	42.9	NA	700	NA	700	NA	NA	NA	NA	NA	750	1000	33.3	NA	NA	NA
Zamfara	800	1400	75.0	900	1400	55.6	NA	400	NA	NA	1000	NA	NA	NA	NA	NA	1300	NA
Kaduna	NA	500	NA	NA	2000	NA	NA	1000	NA	NA	1600	NA	700	1000	42.9	800	NA	NA
Katsina	NA	1000	NA	NA	1800	NA	NA	1200	NA	NA	1500	NA	700	900	28.6	800	1000	25.0
Kebbi	700	1200	71.4	850	1500	76.5	1050	1200	14.3	1200	1500	25.0	750	950	26.7	800	NA	NA
Sokoto	800	1100	37.5	850	1500	76.5	900	912	1.3	1200	1667	38.9	NA	1000	NA	NA	1433	NA
Kano	NA	1000	NA	NA	1200	NA	NA	850	NA	NA	900	NA	NA	900	NA	NA	1200	NA
Zonal Mean	750.0	960.0	54.5	566.7	1600.0	69.53	650.0	1032.4	7.8	800.0	1433.4	32.0	716.7	950.0	32.7	800.0	1211.0	25.0

Table 9.22: Commodity Prices (N/Kg) in South West Zone

State	Fresh Fish						Dry Fish (SMOKED)						Frozen Fish					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Osun	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1000.00	1300.00	30.00	1300.00	1500.00	15.38
Oyo	950.00	NA	NA	1000.00	NA	NA	1800	NA	NA	2000	NA	NA	900.00	NA	NA	900.00	NA	NA
Ekiti	800	800.00	0.00	900.00	1500	66.67	1300	1200	-7.69	1500	2000.00	33.33	1000	1000.00	0.00	1000	1500.00	50.00
Ondo	900	2000	122.22	850.00	950.00	11.76	1300	2350	80.77	1500	2500.00	66.67	600.00	1000.00	66.67	650.00	1200.00	84.62
Ogun	800	880.00	10.00	800.00	900.00	12.50	1700	1110	-34.71	1700	2100.00	23.53	1200	1350.00	12.50	1350	1420.00	5.19

Rivers	2300.00	NA	NA	2500.00	NA	NA	2400.00	NA	NA	2500.00	NA	NA	1700.00	NA	NA	1800.00	NA	NA
Zonal Mean	1375.00	1326.80	11.87	1433.30	1655.00	31.04	1588.00	1598.60	11.10	1688.00	1914.20	23.46	995.00	939.00	57.21	1120.00	1100.00	15.07

9.5. Prices of Dressed Chicken, Egg and Paddy Rice

The results on Table 9.25 to Table 9.30 indicate the market prices of dressed chicken, egg and paddy rice for January 2020/2021 and July 2020/2021. Significant price increase was sustained in the above commodities in all the states as well as the FCT in 2021. Zamfara State recorded the lowest price increase at (6%) while the highest price increase was reported by Lagos State at (150%). The highest mean price variation for dressed chicken was recorded in the South West and South East zones while the lowest mean increase was recorded in the South South zone in 2021.

The price of egg also recorded remarkable increase with Jigawa State taken (40%) recording the highest increase in the NW zone. Bauchi recorded 37% in the NE zone; Kwara State experienced a 50% increase in the NC zone. Anambra got 66.67% in SE zone while Ondo State had 105% in the SW zone, Cross River State witnessed a 54.55% increase in the SS zone. Lagos State recorded the lowest increase in price at 18.18%. The highest percentage mean price variation for egg was recorded in the South West while the lowest mean increase was recorded in the South South zones respectively in 2021.

The lowest price increase for paddy rice was recorded in Plateau State at 5% while the highest was in taken from Ogun State (120%). The highest percentage mean price variation for paddy rice was recorded in the South West zone while the lowest mean increase was recorded in the South South zone in 2021.

Table 9.25: Commodity Prices (N/Kg) in North-Central Zone

States	Chicken						Egg						Paddy Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Benue	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kogi	1250	1750	40.0	1350	NA	NA	1000	NA	NA	1100	NA	NA	NA	NA	NA	NA	0	NA
Nassarawa	NA	NA	NA	NA	NA	NA	1250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FCT	1200	2000	66.7	1200	2400	100.0	1000	1300	30	1100	1500	36.36364	169	286	69.1	236	333	41.4
Plateau	NA	NA	NA	NA	NA	NA	1000	NA	NA	NA	NA	NA	850	900	5.9	950	1000	5.3
Niger	1200	1500	25.0	1250	1650	32.0	NA	NA	NA	NA	NA	NA	145	459.04	216.6	191	470	146.8
Kwara	900	1200	33.3	1000	1400	40.0	1000	1500	50	1000	1500	50	156	331.1	112.2	220	400	81.8
Taraba	1350	1650	22.2	1400	1700	21.4	NA	NA	NA	NA	NA	NA	160	395.07	146.9	220	435	97.7
Mean	1162.5	1587.5	36.8	1212.5	1787.5	48.4	1000.0	1400.0	40.0	1050.0	1500.0	43.2	296.0	434.2	105.4	363.2	527.7	74.6

Table 9.26: Commodity Prices (N/Kg) in North Eastern Zone

States	Chicken						Egg						Paddy Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change	2020	2021	% Change
Borno	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Yobe	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	412	NA	NA	242	NA
Bauchi	1250	1500	20	1300	1600	23.1	950	1200	26.3	950	1300	36.8	160	185	15.8	225	285	26.8
Gombe	1000	1200	20	700	1300	85.7	2000	2300	15.0	3000	3300	10.0	900	1100	22.2	900	1500	66.7
Adamawa	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mean	1125.0	1350.0	20.0	1000.0	1450.0	54.4	1475.0	1750.0	20.7	1975.0	2300.0	23.4	530.0	565.8	19.0	562.5	675.8	46.7

10.0. FARMERS' ASSESSMENT OF CROPS PERFORMANCE

This section presents the results of findings on farmers' assessment of 2021 agricultural production. The results in this section include the demographic characteristics of farmers, area of land cultivated, crop production, livestock production, fish production, crop and livestock pest and diseases, input access and usage, crop production prospect, extension services, media, food consumption pattern etc.

10.1. Sample Design

A three-stage multi-sampling design involving clustering was used to select respondents for the survey. The first stage in the sampling approach involved a random selection of two Local Government Areas (LGAs) in each of the two selected ADP Zones in each of the thirty-six states and two Area Councils from the Federal Capital Territory. The second stage involved a random selection of one community in each of the selected four LGAs in each of the states, making a total of four communities per state. Two communities were also selected in each of the selected Area Council of the FCT. At the third stage, five farmers were randomly selected in each of the selected community. In all, 146 communities and 740 farmers were proposed for the survey. However, less than twenty farmers were interviewed in some states; consequently, the survey covered a total of seven hundred and twelve (712) farmers in 2021. Major constraint against wider coverage and larger sample size was paucity of funds and the duration for the exercise. The sample size used was a representative of the states and the agro-ecological zones.

10.2. Data Collection, Processing and Analysis

Data was collected using mobile devices with installed Open Data Kit (ODK) application. Completed copies of questionnaire were uploaded to a central server at the end of each day outing directly from the field. Data cleaning and analysis were done with IBM SPSS Statistics Version 26 and Microsoft Excel 2020. Interviews were transcribed and edited. Similarly, some variables were converted to standard units, for the instance, the conversion of area of farmlands to hectare by dividing the sizes of farmland in acre by 2.5. Descriptive statistics are expressed as means for continuous variables and percentages for categorical variables.

10.3. Demographic Profile of the Sample Population

i. Gender and Age of Farmers

Majority (75%) of the surveyed farmers were male while 25% were female as shown in Figure 10.1. The mean age for the male farmers was 49 years and 44 years for female farmers as indicated in Figure 10.2. The proportion of active farmers declined as the age category increased from 60 and above. Respondents between the ages of 25 and 60 years old made up the largest proportion (86%) of the farmers interviewed. Of the 712 farmers surveyed, at least 32% were between the ages of 25 – 40 years as against the 30% recorded in 2020, indicating a marginal increase in youth participation in agriculture in 2021.

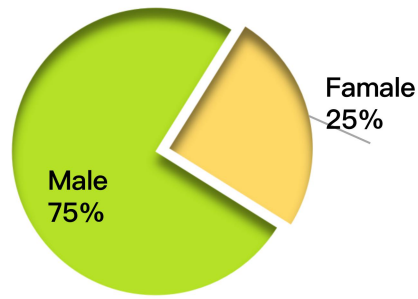


Figure 10.1: Proportion of farmers by gender

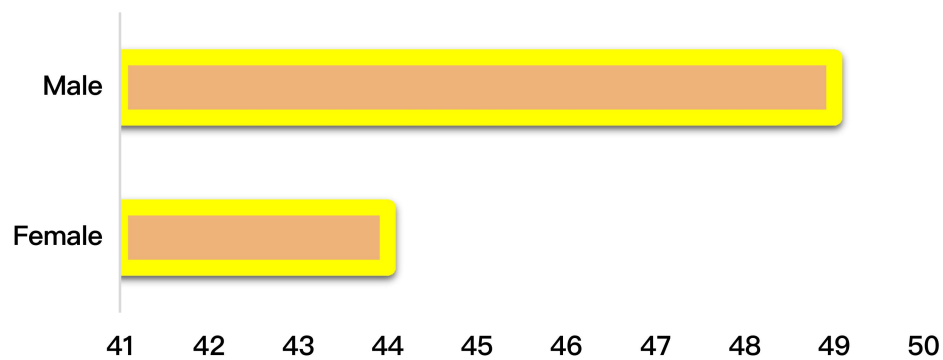


Figure 10.2: Mean age of farmers

ii. Household Size and Composition

The mean household size ranged from 6 to 13. In some Northern states, it was between 8 and 13 while it was between 6 and 10 in the Southern states and some parts of the states in the North Central zone (Figure 10.3).

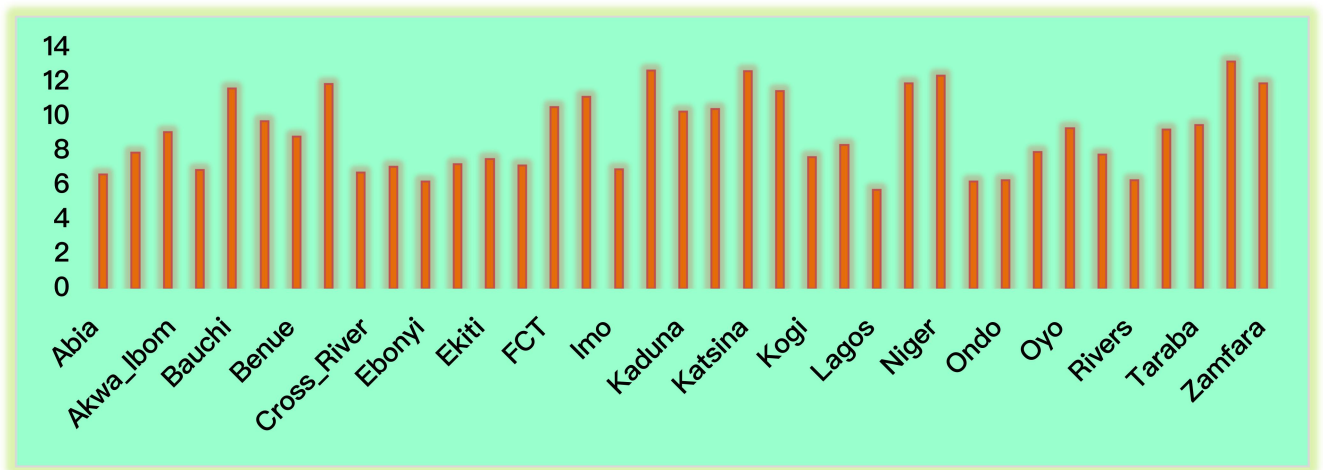


Figure 10.3: Mean household size

iii. Area of Land Cultivated

Majority of the farmers interviewed cultivated land area between 0.75 – 2.5 hectares in 2021. Moreover, most of the farmers had between 1 to 5 independent plots of farm lands not cultivated. The median hectarage for maize cultivated was 3 hectares. Inter-cropping (i.e., by planting different crops in the same piece of land such as cassava and maize) was a common practice among farmers in Nigeria in 2021. Most of the farmers increased their farm size in the 2021 cropping season. The expansion in cultivated land area could be attributed to clearing of more farmlands in some states by the government and also the need to improve food security at household level considering the continuous hike in food prices in 2021.

10.4. Crop Production

Majority of the respondents (93%) are smallholder farmers that cultivated less than five hectares of land at subsistence level. On the average, households cultivated 2 or 3 staple crops across the states. In each of the states, the staple cereal and tubers cultivated by most farmers were maize; after which rice, sorghum, millet yam, cassava and sweet potatoes occupied varying positions of importance, based on the state. The proportion of farmers producing legumes (cowpeas groundnuts and soybean) was generally not as high as those producing cereals, but the production of legumes with the most producing farmers varied from state to state. The production pattern of the farmers is shown in Figure 10.4 below.

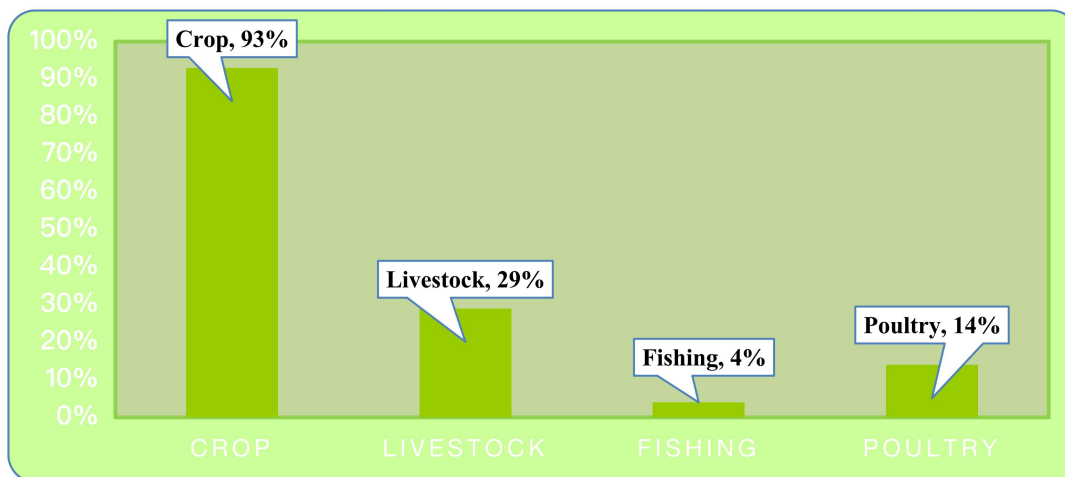


Figure 10.4: Nigerian farmers production pattern in 2021

10.5. Livestock Production

Little proportion of the respondents kept livestock (29%) and did poultry (14%) to augment their income. Figure 10.5 shows that goat was the most common small ruminant kept by 19% of the farmers. Sheep were owned by 12% of farmers predominantly in the Northern states. Similarly, cattle were kept by 11% of the farmers surveyed. Livestock were mostly kept under low cost and poor management leading to low livestock production.

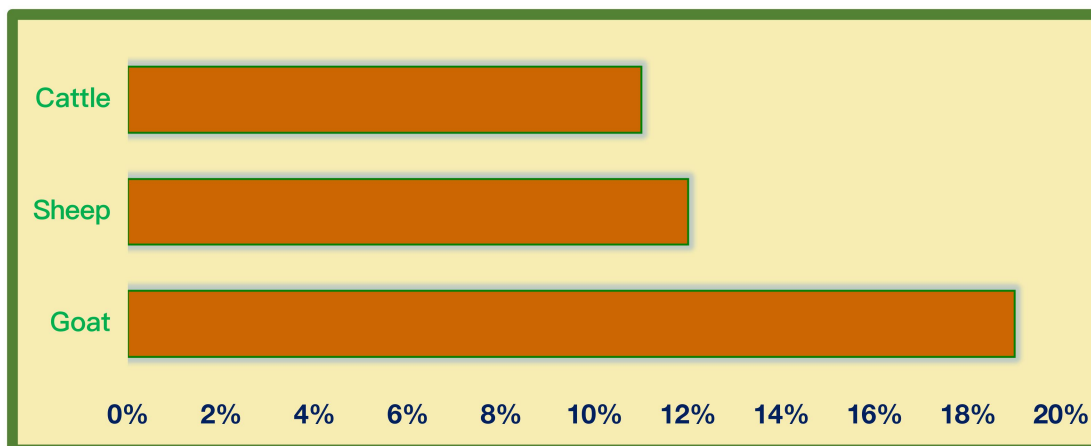


Figure 10.5: Livestock type produced by farmers in Nigeria in 2021

10.6. Fish Production

About 4% of the farmers in the Southern states said they engaged in fish farming in 2021. This figure was mainly reported in Lagos, Ogun and Rivers states. The most common fish species cultivated was catfish and tilapia. About 3% of these farmers produced catfish and the main source of fingerlings specialized private fish farms in the states or neighboring states.

10.7. Crop and Livestock Pest and Diseases

Farmers (56%) reported infestation of pest and diseases on crops while 13% reported infestation of livestock. This is slight decrease compared to 2020. However, crop pest and disease level were reported to be light to moderate impacts on maize in the current year with principal problem being Fall Army Worm (FAW) in all the 36 States and FCT. Rice bacterial blight and birds were reported to have affected rice farms in all the states with level of severity of the infestation been light. A significant proportion of farmers reported nematode attack/rotting on yam and cassava mosaic disease on cassava with the level of severity being light. Bio-Pesticides were used by farmers to control the Fall Army Worm infestation on maize. There were reported cases of coccidiosis and New Castle Disease (NCD) of poultry and PestePetits Ruminants (PPR), on Goat/Sheep by farmers in 2021. Vaccination was reported as a measure undertaken to control the spread of livestock diseases.

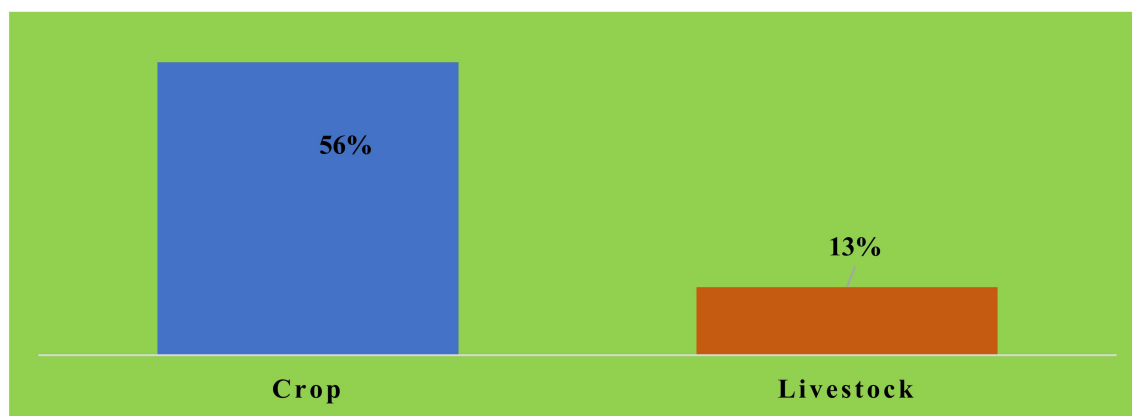


Figure 10.6: Reported cases of infestation on crop and livestock in 2021

10.8. Sources of Inputs, Access and Usage

Majority of the farmers asserted that farm inputs were mainly purchased from the open markets within and outside the communities in the current cropping season. Only a small fraction (4%) of the farmers received inputs from government agencies in 2020 and 2021. Moreover, 2% of the farmers received input from the governments in both years. This is an indication that limited quantity of farm inputs were procured and distributed. It could be argued that the inputs might not adequately considering the population of the farmers who were active and ready to farm in the country 2021. Farm inputs such as inorganic fertilizer was scarcely used by majority of the farmers for crops cultivation. The farmers claimed that that fertilizer was accessible but not affordable in most of the states. A considerable number of the farmers claimed they did not receive fertilizer from the government in 2021. About 35% of the farmers interviewed said they purchased fertilizer at exorbitant prices, while 65% of them could not procure fertilizer because the high prices. Also, farm equipment such as tractors, sprayers, agro-processors were not procured or made available to farmers by the government. The farmers wanted the governments at all levels to procure adequate farm inputs for distribution to smallholder farmers at subsidized prices. Meanwhile, government officials argued that efforts by the government to procure farm inputs and distribute at subsidized prices continued to be defeated by lack of fund. It was reported that farm inputs were only available at the open markets at high prices in 2021. Obviously, when fertilizer application is not sufficient, there is bound to be low productivity which could trigger food insecurity. For farmers that use fertilizer, the fertilizer use per hectare was far lower than the 200kg/Ha recommended by the FAO.

i. Improved Seeds

A higher proportion of the farmers (67%) were aware of improved seeds but only 48% have bought improved seeds in 2021. Some 16% of the farmers indicated that they bought their seeds in open containers while 32% bought theirs in sealed packages. Most of the farmers bought their improved seeds from market, government and agro-dealers. The use of improved seed was generally low, probably because most farmers still use seeds saved from previous harvest. A 50% of the farmers would want a replacement of the seed varieties they were using. Their reasons for that included the desire for improve harvest and increase productivity.

Many farmers access their seed from formal and informal channels as a way of getting the varieties of the seeds. The quantities of seeds purchased varied from 5kg to 25kg. The average cost of purchased seeds was about ₦2500. Seeds were mainly obtained from the local market (52%), government (13%), Agro-Dealers 14%) and seed companies (10%). Other sources were research institutes (4%), cooperatives (3%), and friends/relatives (4%) (Figure 9.7).

ii. Fertilizer

The use of inorganic fertilizer in Nigeria in 2021 was relatively low and varied across the states. The quantity of fertilizer both organic and inorganic applied on crops by farmers was insufficient. Thus, farm productivity was affected. Although 68% of farmers sampled used inorganic fertilizer, the application per hectare has continued to decline over the years. This could be attributed low-income capacity of the farmers and the high market price. More than half (61%) of the farmers used the NPK fertilizer, while some (43%) used the Urea product. About 45% of the farmers used organic fertilizers (animal manure). The application of organic fertilizers was also minimal as only small amounts of the organic fertilizer were used by individual farmers. The organic fertilizers used among farmers were mostly secured from cow and small ruminant dung (24%) and poultry manure (15%). Only 6% of the farmers used the municipal waste as manure in 2021.

Farmers purchased fertilizers at an average cost of ₦9,500 per 50kg bag from the open market in 2021. The NPK and Urea fertilizers remained the common inorganic fertilizers used by farmers in Nigeria in 2021. The average cost of NPK and urea in the season ranged from ₦9,000 to ₦12,500 per bag. Organic manure was obtained from livestock kept in the homestead, and from some suppliers in the open market.

iii. Pesticides: Herbicides and Insecticides

To protect crops from weeds, pest and diseases, most of the farmers used pesticides. Majority (91%) applied herbicides and insecticides on their crops. Many of the farmers (75%) used herbicides while 52% applied insecticides. Herbicides were the dominant pesticides used for weed control among cereal farmers. One litre of herbicides and insecticides was procured at ₦1,800 and or ₦2,500 in the open markets.

Generally, insecticides application was low in all the six zones in 2021. The application of fungicides was not reported. About 23% of the farmers used tractor for cultivation in 2021. Similarly, an insignificant proportion (1%) hired tractors from government agencies, a decline from what obtained in 2020. Some 16% hired tractor from private owners. Only 3% hired from cooperative associations. No farmer received credit facilities from the government in 2021. However, a small fraction accessed credit facility from farmers' cooperatives. Government, at all levels, should facilitate farm inputs at affordable rates to farmers to boost agricultural productivity, improve food security and enhanced livelihoods in Nigeria.

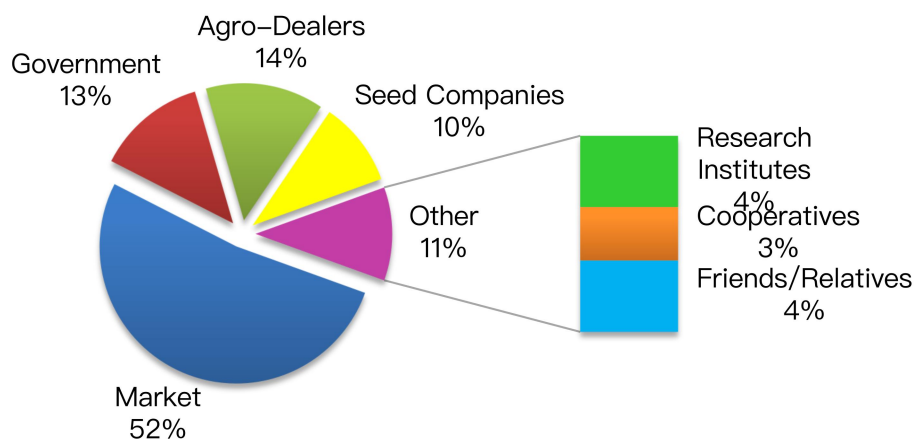


Figure 10.7: Farmers sources of seed in 2021

10.9. Crop Production Prospect

The effect of insecurity in some parts of the country resulted to negative impacts on crop production in 2021. However, when compared to the previous year, increase in output are expected in 2021. About 67% of farmers were optimistic and expected higher output compared to the 47% of the farmers who were optimistic that 2020 would bring good harvest. Some 17% of the farmers expected were afraid that their production for 2021 could be below that of 2020; while about 9% opined that their output could remain the same as 2020. About 7% were not sure of what the 2021 production out could be. (Figure 10.8).

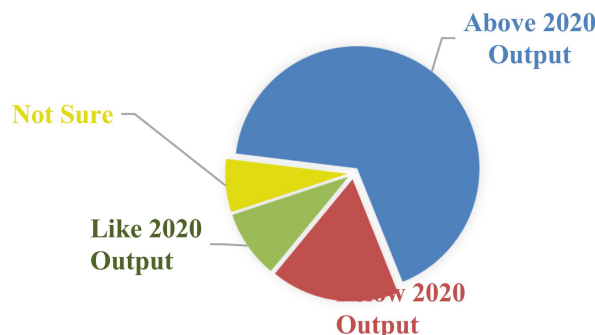


Figure 10.8: Farmers expected output for 2021 season

10.10. Sources and Types of Extension Services

The proportion of farmers who receive extension advice is still low in Nigeria. In the survey across 36 States and FCT, 52% of sampled farmers accessed extension services in 2021. There was an average of 509 farmers receiving extension advisory services representing 72% of the total number of the respondents. The following are the proportions of farmers who usually receive extension advice from the three most important sources: extension agents (57%), radio (17%) and friends/co-farmers (15%) (Figure 10.9).

A major constraint to an effective extension service delivery is disproportionate ratio of extension agents to farmers. The ratio of national extension agent to farmers is 1:4000, compared with the recommended 1:800 (FAO). Most of the farmers that had access to extension agents were farmers who live in the locations or zones where the Agricultural Development Programme (ADPs) were still very active. Thousands of farmers in Nigeria were not responsively engaged by the ADPs in 2021. Hence, radio and other farmers constituted the greatest sources for agricultural information among Nigerian farmers in 2021.



Figure 10.9: Most important sources of agricultural information in 2021

10.11. Constraints to Electronic Media Use by Farmers

Electricity supply and timing are the major constraints affecting electronic media use by farmers. Some farmers indicated that their communities were no connected to the national grid; and in communities where there were electricity connections, the supply have been epileptic. Most of these farmers use the dry cell batteries to power their radios in order to access agricultural information (Figure 10.10).

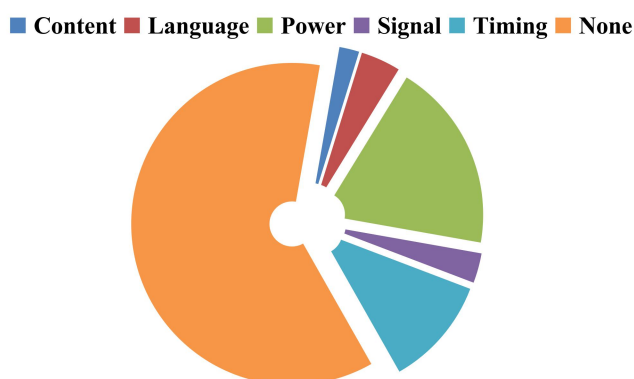


Figure 10.10: Constraints affecting farmers use of electronic media in 2021

10.12. Food Consumption Pattern and Household Dietary Diversity

Food consumption was assessed over a 24-hour reference period to estimate food and nutrient intake adequacy. To estimate food consumption intake, an extended reference period of seven days recall was used. Also, for dietary diversity, a well-recognized and an important dimension of diet quality was adopted, that is, the Household Dietary Diversity Score (HDDS). The HDDS was calculated based on whether any member of the household consumed any food from the twelve food groups during the recall period of 7-days.

The food groups were: cereals, root and tubers, legumes, vegetables, fruits, fish and sea foods, meat, egg, milk and dairy products, sugar, oil and fats and condiments. The analysis showed that although starchy food and vegetables constituted the main foods consumed by

most of the farmers, several meals with varying ingredients were consumed based on the two food groups which were mostly complemented by oil and fat.

Generally, poor consumption of proteins (legumes, meat and fish) and fruits do result in micronutrient deficiencies in any human being. It was observed that many of the household sampled were not consuming adequate legumes, meat and fish due to their inability to procure them and in some instances ignorance of the fact that these foods have important nutritional value that should not be missed for health growth and development.

The food group most frequently consumed by households was starchy staples, especially cereals. The results from the survey indicated that 97% and 95% of the households sampled consumed cereals and vegetables respectively in the last 24 hours (as per the period the data were collected) and were consumed at least 6 to 7 days a week in all Northern States except Kano, Kogi, Kwara, and Taraba states. Most of the households consumed cereals or starchy roots and tubers every day of the week, except in the Southern zone where cereals were consumed at an average of 3 days a week and tubers, 4 days a week. The consumption of legumes, including cowpea, soybean and groundnut was low in the households sampled. On the average, the sampled households consumed legumes 2 to 3 times a week across the states.

In general, the consumption of egg and dairy products (44% and 55%) was considered low. On the average, sampled households consumed egg once a week across the states. Eggs and all dairy were the least consumed food groups. The number of households that consumed meat or fish and sea food during 24 hours preceding the survey were about 67% and 75%. From the results was observed that households in the Southern states consumed more fish than those in the Northern states. As for meat consumption, the highest frequency was three times a week. It was apparent that the sampled households consumed fish more than meat in 2021. The results of the survey showed that majority of the sampled households consumed all starchy staple and vegetables. Less than a third (28%) of the households had a Household Dietary Diversity Score (HDDS) greater than 6 food groups per day. Some 21% had ≥ 5 food groups, 30% had ≥ 4 food groups, while 21% had ≥ 3 food groups (Figure 10.11).

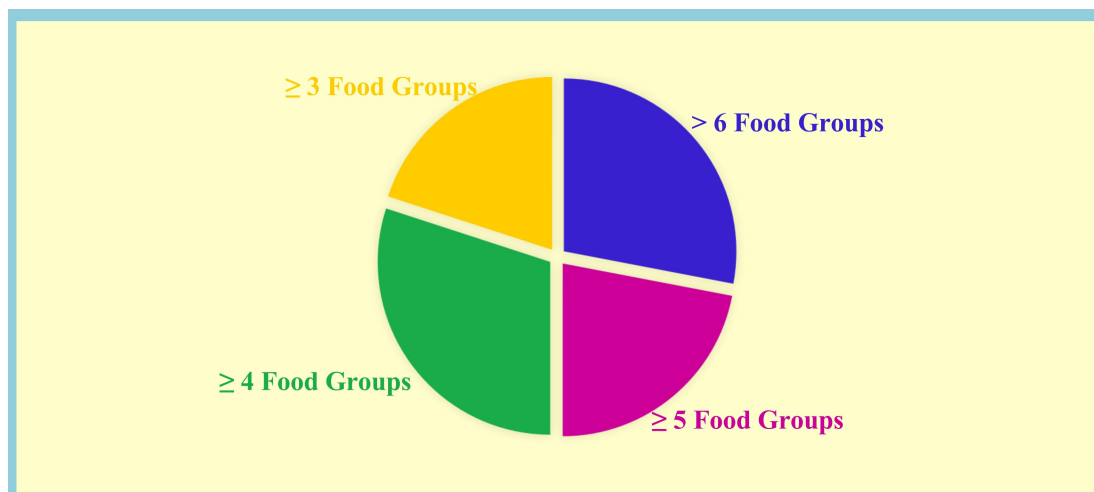


Figure 10.11: Food groups consumed by households

11.0 PRODUCTION ESTIMATES FOR MAJOR CROPS

11.1: Rice

Estimated total land area devoted to rice production in 2020 was 4195m, this however increased to 4306m ha in 2021; an increase of 2.98% across states. Major increase in the cultivated land area for rice in 2021 were recorded in Kogi, Delta, Ogun, Ebonyi, Osun, Kano, Gombe and Akwa Ibom states. There was a great reduction in the land size cultivated for rice in 2021 in Zamfara, Edo, Bayelsa, Ogun, Niger, and Rivers, while there was a marginal increase in Yobe State. The total production for rice marginally increased by 2.08% from 8172m tons in 2020 to 8342m tons in 2021. Across the states, Bauchi State was projected to witness an increase of 7.59%, followed by Kano with 6.45%, then Ekiti followed with a 5.98%, Jigawa was next with a 5.91%, the next state was Rivers with a 5.41%, then Ogun with 5.36%, and Ebonyi at 5.37% in 2021.

Zamfara State recorded the major decrease in rice production in 2021. The state recorded a decrease of 10.52% decrease in output. Other states with decrease output were Katsina State with 9.69%, followed by Edo State with 2.89% and Bayelsa State with 1.28% output reduction. The aggregate national rice yield marginally decreased from 1.95 ton per hectare to 1.93 ton per hectare. This decrease in yield was attributed to lack of input for plantation especially in states where land had been increased in anticipation for bigger cultivation in 2021. Thus, the results revealed that in many states, land increase did not commensurate with rice yield in 2021. The decrease in land cultivated and yield witnessed in some states could be traced to incessant kidnapping and bandit activities that would not allow farmers move freely to perform agricultural activities especially in Zamfara, Katsina, Niger, Sokoto and Kebbi. Some farmers have outrightly left farming while many have relocated to Internally Displaced People's camps for safety and humanitarian support.

11.2: Maize

Total land area cultivated for Maize in 2021: The estimated total land area for maize increased by 2.59% in 2021. Estimated aggregate land area for maize was 6205.34 million hectares in 2021 as against 6048.6 million hectares in 2020. States, with the major increase in cultivated maize land area include Bayelsa which recorded the highest increase in land area at 9.94%. The state that followed was Nasarawa, the state recorded a 9.91%. Abia was next with a 8.95% increase, Adamawa and Taraba had 6.98% and Kaduna was 5.98%. Even though, Bayelsa and Abia states recorded higher increase in land area cultivated for maize in 2021, a comparison with other states' cultivated land for maize was relatively small. Relative differences in the sizes of land increase could be due to the availability of arable land and insecurity in many of the states sampled in 2021. The projected maize output in 2021 is expected to increase by 2.75% in 2021, the aggregate output was expected to reach 12744.4 million ton as against 2020, whereas in 2021 the output is estimated to reach 12403.3 million tons. Osun State had the relative highest increase in maize output at 9.28% in 2021. The record was followed by maize output from Cross Rivers, Kogi, Adamawa, Taraba, Kaduna and Ekiti states with varied percentages. Abia, Zamfara, Edo and Sokoto states had the highest decrease in estimated maize yields in 2021. The estimated national average increase for maize yield was a 2.75% in 2021.

Table 11.2: Land Area and Production Output for Maize

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2020	2021	% Change	2020	2021	% Change	2020	2021
Abia	71.82	78.25	8.95	105.01	96.62	-7.99	1.46	1.24
Adamawa	189.92	203.17	6.98	412.96	442.39	7.13	2.17	2.18
Akwa Ibom	79.71	83.69	5.00	87.59	92.04	5.08	1.09	1.10
Anambra	53.18	55.08	3.58	104.29	109.50	5.00	1.96	1.99
Bauchi	295.24	307.07	4.01	542.09	581.01	7.18	1.84	1.89
Bayelsa	52.05	57.22	9.94	82.58	87.21	5.61	1.59	1.52
Benue	161.11	163.59	1.54	379.17	386.33	1.89	2.35	2.36
Borno	368.17	387.24	5.18	618.04	626.65	1.39	1.68	1.62
C/Rivers	59.38	60.74	2.29	103.71	112.77	8.73	1.75	1.86
Delta	76.54	81.49	6.48	154.52	163.29	5.68	2.02	2.00
Ebonyi	90.12	91.49	1.52	164	167.28	2.00	1.82	1.83
Edo	110.54	108.06	-2.25	167.88	159.70	-4.87	1.52	1.48
Ekiti	155.81	163.01	4.62	280.46	299.46	6.78	1.80	1.84
Enugu	96.36	97.25	0.93	175.75	182.79	4.01	1.82	1.88
FCT	197.27	198.89	0.82	448.52	454.42	1.32	2.27	2.29
Gombe	357.2	375.61	5.16	638.21	648.79	1.66	1.79	1.73
Imo	53.2	55.69	4.68	128.71	134.97	4.87	2.42	2.42
Jigawa	177.92	182.03	2.31	318.28	332.44	4.45	1.79	1.83
Kaduna	358.6	380.04	5.98	916.62	977.03	6.59	2.56	2.57

Kano	129.79	132.97	2.45	350.44	357.06	1.89	2.70	2.69
Katsina	189.74	187.21	-1.33	379.41	362.36	-4.49	2.00	1.94
Kebbi	174.09	170.79	-1.89	345.67	335.68	-2.89	1.99	1.97
Kogi	166.27	174.58	5.00	397.73	430.87	8.33	2.39	2.47
Kwara	166.59	171.59	3.00	325.74	335.49	3.00	1.96	1.96
Lagos	161.93	163.49	0.97	259.95	261.51	0.60	1.61	1.59
Nasarawa	106.04	115.79	9.19	308.08	311.95	1.26	2.91	2.69
Niger	281.13	258.93	-7.90	698.4	700.61	0.32	2.48	2.71
Ogun	141.65	139.09	-1.81	289.9	286.24	-1.26	2.05	2.06
Ondo	154.22	159.76	3.59	385.96	396.34	2.69	2.50	2.48
Osun	172.04	175.89	2.24	349.5	381.93	9.28	2.03	2.17
Oyo	162.86	170.86	4.91	305.36	315.82	3.43	1.88	1.85
Plateau	261.31	265.04	1.43	647.74	656.48	1.35	2.48	2.48
Rivers	61.56	64.21	4.30	132.59	135.86	2.46	2.15	2.12
Sokoto	101.88	102.58	0.69	272.7	260.99	-4.29	2.68	2.54
Taraba	277.16	296.50	6.98	565.5	605.80	7.13	2.04	2.04
Yobe	146.3	150.60	2.94	294.5	302.70	2.78	2.01	2.01
Zamfara	189.9	175.79	-7.43	265.74	252.07	-5.14	1.39	1.43
National	6048.6	6205.34	2.59	12403.3	12744.47	2.75	2.05	2.05

11.3: Sorghum

The total land area for sorghum production increased in Nigeria by 2.27% in 2021. The aggregate figure for the sorghum land area was 5931m ha in 2021 as against 5800m ha in 2020. Kogi State recorded the highest increase in land size cultivated sorghum. The state reported an increase in sorghum land area of 6.67%, followed by Katsina State which reported an increase of 5.33%, followed by Bauchi with 5.0%. The least value for the cultivated land for sorghum in 2021 was recorded in Gombe State at 0.91%. Zamfara State reported the major decrease in sorghum land size planted at 5.86%; Yobe also reported a decrease of 0.32%. The highest decrease reported by Zamfara might be associated with the activities of bandits and rampant kidnapping in many farming communities.

For the projected sorghum production in 2021, the production actually increased by 2.05%. Oyo, Kano, Bauchi, Benue and Kaduna states reported relatively higher changes in production estimates. Katsina and Niger states reported the most decrease in sorghum output. Estimated national sorghum yield increase marginally around 1.13 ton per hectare for the year under review. The sorghum yield in Borno, Gombe and Zamfara were relatively below the national average; whereas in FCT, Kogi Kwara, Nasarawa, Niger, Plateau states the yields were above the national average for 2021.

Table 11.3: Land Area and Production Output for Sorghum

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2020	2021	% Change	2020	2021	% Change	2020	2021
Adamawa	261.2	271.6	4.0	288.0	292.0	1.40	1.10	1.08
Bauchi	406.9	427.2	5.0	425.9	447.2	5.00	1.05	1.05
Benue	192.1	196.1	2.1	195.4	204.8	4.83	1.02	1.04
Borno	335.4	351.8	4.9	332.9	347.5	4.39	0.99	0.99
Enugu	13.1	13.4	2.8	13.8	14.2	2.89	1.06	1.06
FCT	107.2	110.2	2.8	129.0	132.9	3.01	1.20	1.21
Gombe	335.9	336.5	0.2	324.9	331.3	1.98	0.97	0.99
Jigawa	293.7	293.7	0.0	350.9	351.6	0.19	1.20	1.19
Kaduna	410.5	426.0	3.8	425.9	446.2	4.76	1.04	1.05
Kano	576.8	593.2	2.9	584.1	618.6	5.89	1.01	1.04
Katsina	322.6	339.8	5.3	381.4	357.6	-6.25	1.18	1.05
Kebbi	327.3	336.0	2.7	389.7	406.5	4.32	1.19	1.21
Kogi	95.9	102.3	6.7	127.5	129.9	1.85	1.33	1.27
Kwara	103.4	106.5	3.0	147.3	151.7	3.00	1.42	1.42
Nasarawa	91.2	92.5	1.5	161.6	165.1	2.20	1.77	1.79
Niger	401.8	417.4	3.9	567.6	549.7	-3.15	1.41	1.32
Oyo	49.6	51.7	4.2	59.0	64.9	10.03	1.19	1.25
Plateau	199.0	201.9	1.4	300.6	311.7	3.69	1.51	1.54
Sokoto	274.8	275.8	0.3	370.5	376.8	1.70	1.35	1.37
Taraba	311.8	324.3	4.0	336.1	340.7	1.40	1.08	1.05
Yobe	252.7	251.9	-0.3	264.9	271.0	2.29	1.05	1.08
Zamfara	436.7	411.1	-5.9	413.6	413.6	0.00	0.95	1.01
National	5799.6	5931.1	2.3	6590.4	6725.4	2.05	1.14	1.13

11.4: Millet

Millet is another important cereal crop used for food and as raw materials by many manufacturing companies in Nigeria. The total land area devoted for millet in Nigeria was reported to increase marginally at 0.29% between 2020 and 2021. The national millet land area in 2020 was 1762.38 million hectares, the size has increased in 2021 to 1767.41 million hectares. This increase in millet land area was observed mainly from Zamfara, Kano, Plateau and Benue states. Decrease in land size cultivated for millet in 2021 was recorded in Kwara, Borno and Katsina states.

For the total millet output in Nigeria, in 2020, Nigeria recorded a 1905.43 million tons though the projected figures in 2021 was 1926.97 million tons. The projected figure was

very small (a relative 1.13%); the projected figure is arguably not encouraging. Many factors, including insecurity and unstable market prices could account for such dismal projection. On one-on-one basis, the states with major increase in output for 2021 were Benue with an increase of 10.52%, Zamfara reported an increase in of 6.53%. Plateau state followed them with a 3.90%, whereas Borno State reported an increase of 3.89%. In 2021, Katsina State reported a reduction of millet output by 8.04%, Niger state reported a decrease of 5.49%. Nonetheless, the national millet average yield remained relatively around 1.08 ton per hectare as compared to 1.09 ton per hectare in 2020.

Table 11.4: Land Area and Production Output for Millet

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2020	2021	% Change	2020	2021	% Change	2020	2021
Adamawa	135.26	137.88	1.94	163.66	166.80	1.92	1.21	1.21
Bauchi	88.22	88.25	0.04	76.56	76.61	0.06	0.87	0.87
Benue	108.82	112.31	3.21	78.67	86.94	10.52	0.72	0.77
Borno	95.96	98.63	2.78	75.20	78.13	3.89	0.78	0.79
FCT	50.44	49.48	-1.91	55.54	57.16	2.93	1.10	1.16
Gobe	121.21	123.03	1.50	117.32	118.73	1.20	0.97	0.97
Jigawa	94.19	94.19	0.00	70.89	71.08	0.27	0.75	0.76
Kaduna	63.78	63.49	-0.45	51.94	51.60	-0.65	0.81	0.81
Kano	52.24	54.27	3.89	87.56	88.42	0.99	1.68	1.63
Katsina	151.92	137.85	-9.26	166.45	153.07	-8.04	1.09	1.11
Kebbi	80.42	81.50	1.34	73.45	75.57	2.89	0.91	0.93
Kogi	39.74	39.96	0.56	38.59	38.76	0.43	0.97	0.97
Kwara	31.62	32.56	2.98	30.03	30.92	2.97	0.95	0.95
Nasarawa	24.17	24.38	0.90	31.45	31.73	0.90	1.30	1.30
Niger	108.66	103.49	-4.76	120.21	113.61	-5.49	1.11	1.09
Plateau	79.99	83.10	3.89	72.01	74.81	3.90	0.90	0.90
Sokoto	81.40	81.40	0.00	183.26	188.53	2.88	2.25	2.32
Taraba	108.50	110.60	1.94	92.01	93.78	1.92	0.85	0.85
Yobe	208.24	210.94	1.30	240.43	245.26	2.01	1.16	1.16
Zamfara	37.50	40.08	6.89	80.20	85.44	6.53	2.14	2.13
National	1762.28	1767.41	0.29	1905.43	1926.97	1.13	1.08	1.09

11.5: Cowpea

Cowpea is one the crops cultivated in almost all the states in Nigeria. However, the cultivation is high in the Northern states. The total land area devoted for cowpea in 2020 was 4973.5 million hectares; whereas in 2021 the total estimated land area for the cultivation cowpea was 5042.0 million hectares, depicting an increase of 1.38%. Abia State recorded

highest increase for cowpea land area with 10.17%, Imo state followed with 9.23%, Yobe reported 8.76%, Nasarawa was next with 8.39%, Oyo reported 7.21%, and Rivers recorded 6.0% increase in land cultivated for cow pea in 2021. States with relatively significant decrease in cultivated land size for cowpea in 2021 were Niger, Benue, Zamfara, Katsina and Edo states.

The aggregate national cowpea output increased by 1.94% in 2021. The state with the highest increase in cowpea production was Enugu with 9.59%, followed by Osun State with an increase of 8.21%; Abia had 8.16%, and Edo did 6.91%. Zamfara recorded the highest decrease in cowpea output with 9.93%, followed by Katsina State which recording a decrease of 6.91%, then Imo State got 3.71% while Ogun State recorded a 2.5% decrease in land size cultivated for cow pea. The National average cowpea yield increased from 0.79 to 0.81 in 2021.

Table 11.5: Land Area and Production Output for Cowpea

State	Land Area ('000) Ha			Production			Yield	
	2020	2021	% Change	2020	2021	% Change	2020	2021
Abia	40.69	44.83	10.17	43.76	47.33	8.16	1.08	1.06
Adamawa	197.68	201.63	2.00	212.98	217.89	2.30	1.08	1.08
Akwa-Ibom	30.16	30.30	0.45	42.45	42.50	0.12	1.41	1.40
Anambra	119.58	120.25	0.56	64.01	64.13	0.18	0.54	0.53
Bauchi	192.59	198.39	3.01	175.59	177.19	0.91	0.91	0.89
Bayelsa	31.28	31.35	0.22	28.61	28.42	-0.65	0.92	0.91
Benue	140.24	126.45	-9.83	133.46	138.51	3.79	0.95	1.10
Borno	166.96	179.39	7.44	150.65	159.28	5.73	0.90	0.89
C/Rivers	25.64	25.52	-0.46	24.00	23.92	-0.33	0.94	0.94
Delta	50.57	50.84	0.54	45.24	45.30	0.13	0.90	0.89
Ebonyi	71.56	71.56	0.00	43.59	43.59	0.00	0.61	0.61
Edo	5.69	5.49	-3.58	4.91	5.21	6.19	0.86	0.95
Ekiti	164.92	171.52	4.00	92.76	96.86	4.42	0.56	0.57
Enugu	100.38	104.77	4.38	78.80	86.36	9.59	0.79	0.82
FCT	137.97	144.92	5.04	124.45	127.81	2.70	0.90	0.88
Gombe	317.86	323.93	1.91	294.55	300.26	1.94	0.93	0.93
Imo	89.32	97.56	9.23	65.92	68.37	3.71	0.74	0.70
Jigawa	117.85	117.99	0.12	181.88	185.37	1.92	1.54	1.57
Kaduna	179.89	180.79	0.50	152.25	153.68	0.94	0.85	0.85
Kano	199.89	200.74	0.42	169.02	169.94	0.54	0.85	0.85
Katsina	130.96	124.41	-5.00	120.15	111.85	-6.91	0.92	0.90
Kebbi	108.81	108.35	-0.42	88.92	88.35	-0.64	0.82	0.82

Kogi	358.16	371.59	3.75	166.04	170.19	2.50	0.46	0.46
Kwara	226.82	233.48	2.94	202.73	204.91	1.07	0.89	0.88
Lagos	118.55	119.61	0.90	62.35	62.91	0.90	0.53	0.53
Nasarawa	59.90	64.93	8.39	85.80	90.77	5.79	1.43	1.40
Niger	119.93	97.62	-18.60	124.49	123.79	-0.56	1.04	1.27
Ogun	88.20	85.98	-2.51	55.49	54.10	-2.50	0.63	0.63
Ondo	150.14	148.66	-0.99	115.06	115.81	0.65	0.77	0.78
Osun	207.81	211.99	2.01	80.82	87.45	8.21	0.39	0.41
Oyo	118.75	127.31	7.21	101.42	101.87	0.45	0.85	0.80
Plateau	176.28	181.40	2.90	96.88	101.35	4.62	0.55	0.56
Rivers	90.88	96.33	6.00	46.70	47.60	1.92	0.51	0.49
Sokoto	137.24	138.20	0.70	108.85	111.72	2.64	0.79	0.81
Taraba	261.17	266.39	2.00	251.91	257.71	2.30	0.97	0.97
Yobe	101.05	109.90	8.76	216.52	228.90	5.72	2.14	2.08
Zamfara	138.16	127.62	-7.63	79.84	71.90	-9.95	0.58	0.56
National	4973.53	5042.01	1.38	4132.85	4213.11	1.94	0.83	0.84

11.6: Groundnut

The estimated total cultivated land area for groundnut in 2020 was (3620m ha); it has however increased to 3602m ha in 2021. This implied an increase of 2.27%. Kogi State reported the most increased in land area cultivated for groundnut by 8.57%, this was followed by Niger State which reported 7.6% while 7.21% was recorded in Cross River. Bayelsa State reported an increase of groundnut land area by 5.76%. Osun State reported an increase of 6.53%, whereas Zamfara State reported a 6.24%. Katsina State on the other hand reported a decrease in groundnut land area by 4.73%. Similarly, Edo and Yobe states reported a decrease of 3.5% and 2.29% respectively.

The projected groundnut output decreased nationally in 2021. The groundnut output in 2020 was 4206.6; the figure has reduced to 4227.5 (indicating a 0.07% decrease) in 2021. Enugu State reported the major increase in groundnut output at 9.4%. Ebonyi was next with 6.50%, then Edo had 5.0%, Imo was 3.69%, Borno recorded 3.80%, and Kaduna made a 3.0%. The states with the major decrease in output were Borno at 9.81%, Zamfara was 4.69, Kebbi had 4.0% and Niger experienced a 3.7% output reduction in 2021.

Table 11.6: Land Area and Production Output for Groundnut

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2020	2021	% Change	2020	2021	% Change	2020	2021
Adamawa	57.49	58.67	2.05	129.70	131.17	1.13	2.26	2.24
Bauchi	400.30	412.24	2.98	518.47	533.97	2.99	1.30	1.30
Bayelsa	23.80	25.17	5.76	25.17	25.17	0.00	1.06	1.00
Benue	261.65	270.73	3.47	307.80	277.60	-9.81	1.18	1.03
Borno	161.41	161.41	0.00	190.24	197.47	3.80	1.18	1.22
C/Rivers	13.46	14.48	7.60	18.38	19.77	7.55	1.37	1.37
Ebonyi	5.03	5.28	4.88	5.21	5.55	6.50	1.04	1.05
Edo	10.89	10.51	-3.50	6.74	7.12	5.70	0.62	0.68
Enugu	5.29	5.46	3.16	6.50	7.11	9.40	1.23	1.30
FCT	180.59	186.30	3.16	0.23	0.24	1.09	0.00	0.00
Gombe	124.13	124.70	0.46	136.72	138.83	1.55	1.10	1.11
Imo	9.13	9.31	2.00	7.70	7.98	3.69	0.84	0.86
Jigawa	152.30	152.84	0.35	240.16	242.43	0.95	1.58	1.59
Kaduna	204.59	209.91	2.60	280.53	288.95	3.00	1.37	1.38
Kano	216.30	220.19	1.80	150.32	153.33	2.00	0.70	0.70
Katsina	148.30	141.29	-4.73	141.93	137.63	-3.03	0.96	0.97
Kebbi	149.36	146.37	-2.00	189.99	182.39	-4.00	1.27	1.25
Kogi	126.36	137.19	8.57	170.93	173.78	1.67	1.35	1.27
Kwara	188.63	194.43	3.07	252.76	260.28	2.97	1.34	1.34
Nasarawa	91.49	93.32	2.00	210.18	208.75	-0.68	2.30	2.24
Niger	213.47	228.87	7.21	295.92	284.99	-3.70	1.39	1.25
Ogun	19.32	19.41	0.45	42.18	41.82	-0.86	2.18	2.16
Osun	38.03	40.51	6.53	56.70	57.84	2.01	1.49	1.43
Oyo	47.80	49.17	2.87	59.16	61.52	3.99	1.24	1.25
Plateau	146.87	146.87	0.00	209.07	209.55	0.23	1.42	1.43
Sokoto	197.84	197.84	0.00	100.38	100.36	-0.02	0.51	0.51
Taraba	219.87	224.37	2.05	239.14	241.85	1.13	1.09	1.08
Yobe	47.06	45.98	-2.29	61.21	61.24	0.05	1.30	1.33
Zamfara	159.43	169.39	6.24	177.14	168.83	-4.69	1.11	1.00
National	3620.19	3702.21	2.27	4230.60	4227.50	-0.07	1.17	1.14

11.7. Soybean

The production of soybean in 2021 was estimated at 1166.05 thousand metric tons. An increase of 5.43 percent compared to the previous year. The estimated land area put under cultivation for soybean increased in 2021 by 4.52 percent. The production of soybean remained stable over the years because of its nutritive and economic importance most especially in major producing states with Benue State as the largest production hub. Similarly, Kaduna, Kano, Kwara, Niger and Taraba states also produce in large quantities but with an average yield of less than 1.3 tons per hectare in 2021. The national average yield for soybean was 0.92 tons per hectare in 2020 and 2021.

Table 11.7: Land Area and Production Output for Soybean

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2020	2021	% Change	2020	2021	% Change	2020	2021
Adamawa	60.99	62.92	3.16	54.86	57.14	4.16	0.90	0.91
Bauchi	39.82	41.81	5.00	27.16	28.95	6.58	0.68	0.69
Benue	97.59	100.35	2.83	240.46	247.87	3.08	2.46	2.47
Borno	24.92	27.84	11.73	17.57	19.07	8.55	0.71	0.68
Ekiti	26.28	26.41	0.50	9.02	9.05	0.33	0.34	0.34
FCT	64.43	66.34	2.96	36.49	37.58	3.00	0.57	0.57
Gombe	69.46	71.88	3.49	58.24	59.70	2.50	0.84	0.83
Jigawa	43.16	44.18	2.37	34.80	35.39	1.69	0.81	0.80
Kaduna	102.43	105.55	3.05	100.50	105.06	4.54	0.98	1.00
Kano	65.98	68.29	3.50	72.99	76.20	4.40	1.11	1.12
Katsina	58.22	64.39	10.60	38.56	43.24	12.13	0.66	0.67
Kebbi	45.83	46.83	2.18	40.65	42.85	5.42	0.89	0.92
Kogi	58.30	59.48	2.02	46.46	48.96	5.39	0.80	0.82
Kwara	65.79	67.77	3.01	60.24	62.04	2.98	0.92	0.92
Nasarawa	36.73	37.16	1.16	28.48	29.67	4.17	0.78	0.80
Niger	126.84	143.96	13.50	66.54	74.76	12.35	0.52	0.52
Oyo	44.76	49.13	9.76	30.27	33.34	10.14	0.68	0.68
Plateau	48.84	50.04	2.45	29.49	32.61	10.57	0.60	0.65
Sokoto	39.68	43.11	8.65	32.28	37.22	15.30	0.81	0.86
Taraba	54.98	57.17	3.98	68.08	73.59	8.10	1.24	1.29
Zamfara	32.71	27.67	-15.42	12.78	11.77	-7.91	0.39	0.43
National	1207.74	1262.28	4.52	1105.95	1166.05	5.43	0.92	0.92

11.8. Beniseed

Beniseed also known as the sesame seed is an oil seed widely cultivated in the Northern and the Central parts of Nigeria. Benue, Kogi, Nasarawa, Plateau and Taraba as well as the Federal Capital Territory produce this crop in large quantity as cash crop. The production of beniseed is an important source of income for smallholder farmers in these states. The total land area cultivated for beniseed in 2021 was 0.860m ha, representing an increase of 4.86%

percent compared to 2020. The production output was estimated at 0.57m MT which also represent an increase of 3.16% compared to 2020. However, the average yield for benniseed in 2021 was lower than the average yield of groundnut and soybean (also oil seed crops). The national average yield for beniseed was 0.68 tons per hectare in 2020 and 0.67 tons per hectare in 2021.

Table 11.8: Land Area and Production Output for Beniseed

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2020	2021	% Change	2020	2021	% Change	2020	2021
Adamawa	16.91	17.08	1.00	17.97	18.05	0.47	1.06	1.06
Bauchi	22.48	21.81	-3.00	10.65	10.48	-1.55	0.47	0.48
Benue	114.73	119.38	4.05	93.24	96.58	3.58	0.81	0.81
Borno	17.57	18.02	2.56	8.48	8.62	1.65	0.48	0.48
FCT	86.52	89.19	3.09	57.78	58.94	2.00	0.67	0.66
Gombe	37.82	38.01	0.50	10.72	10.75	0.27	0.28	0.28
Jigawa	16.78	18.88	12.50	20.69	22.76	10.00	1.23	1.21
Kano	21.36	22.42	4.95	21.87	22.59	3.29	1.02	1.01
Katsina	54.11	52.76	-2.50	17.84	17.57	-1.50	0.33	0.33
Kebbi	10.35	10.69	3.30	7.39	7.54	2.06	0.71	0.71
Kogi	91.44	96.47	5.50	71.08	73.57	3.50	0.78	0.76
Kwara	34.23	36.27	5.95	15.51	16.14	4.07	0.45	0.45
Nasarawa	58.61	62.26	6.23	59.40	62.38	5.01	1.01	1.00
Niger	68.47	80.08	16.96	25.94	28.90	11.40	0.38	0.36
Plateau	60.65	65.08	7.31	37.33	39.25	5.15	0.62	0.60
Sokoto	29.15	29.96	2.77	15.75	15.94	1.21	0.54	0.53
Taraba	59.74	60.93	1.99	50.39	51.10	1.41	0.84	0.84
Yobe	14.12	16.79	18.90	3.20	3.50	9.40	0.23	0.21
Zamfara	5.58	4.46	-20.07	9.93	8.05	-18.98	1.78	1.80
National	820.63	860.53	4.86	555.16	572.71	3.16	0.68	0.67

11.9. Yam

Yam is a tropical crop mainly grown in some parts of the North Central, South East, South West and South South zones of Nigeria. The states with higher production rate were Benue, Cross River, Ebonyi, Edo, Enugu, Nasarawa, Niger and Taraba. The estimated land area cultivated for yam increased from 7.13m ha in 2020 to 7.5m ha in 2021. The production output of yam increased by 6.28 percent when compared to 2020 while the national average yield increased from 7.90 tons per hectare in 2020 to 7.99 tons per hectare in 2021.

11.11. Cocoyam

Cocoyam is a staple root crop commonly grown among smallholder farmers in Nigeria. Despite its potential high yield, it is poorly cultivated because it is not regarded as a major source of income like other tuber crops. However, it serves as a food security crop for most rural farming households. The land area cultivated for cocoyam in 2021 was 1389.08 thousand hectares which represented 4.28% increase compared to 2020. The production output for cocoyam increased by 4.26% in 2021 while the national average yield was 5.91 tons per hectare in 2020 and 2021.

Table 11.11: Land Area and Production Output for Cocoyam

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2020	2021	% Change	2020	2021	% Change	2020	2021
Abia	41.07	49.60	20.77	296.34	376.86	27.17	7.22	7.60
Akwa Ibom	44.00	48.40	10.01	418.30	476.86	14.00	9.51	9.85
Anambra	102.74	113.01	10.00	561.87	646.15	15.00	5.47	5.72
Bayelsa	80.53	98.84	22.74	533.16	670.50	25.76	6.62	6.78
Benue	29.54	30.04	1.68	126.48	127.76	1.01	4.28	4.25
Borno	19.09	20.04	5.00	5.15	5.30	3.00	0.27	0.26
C/Rivers	34.89	35.91	2.93	423.75	435.62	2.80	12.15	12.13
Delta	39.91	40.99	2.71	200.51	205.80	2.64	5.02	5.02
Ebonyi	139.81	146.95	5.11	281.83	310.94	10.33	2.02	2.12
Edo	55.41	53.47	-3.51	332.91	312.77	-6.05	6.01	5.85
Ekiti	44.36	45.25	2.00	502.36	512.41	2.00	11.32	11.32
Enugu	90.42	74.14	-18.00	776.66	582.50	-25.00	8.59	7.86
Imo	101.90	109.86	7.81	526.31	571.99	8.68	5.16	5.21
Kogi	20.55	21.60	5.12	209.05	215.47	3.07	10.17	9.97
Kwara	50.72	53.75	5.97	153.45	158.41	3.23	3.03	2.95
Lagos	40.87	42.67	4.40	144.34	146.49	1.49	3.53	3.43
Nasarawa	27.61	30.50	10.48	184.94	211.59	14.41	6.70	6.94
Niger	26.26	26.88	2.36	261.90	270.49	3.28	9.97	10.06
Ogun	31.67	31.19	-1.50	343.06	340.08	-0.87	10.83	10.90
Ondo	35.23	36.26	2.92	550.22	566.29	2.92	15.62	15.62
Osun	42.82	41.11	-4.00	349.66	342.67	-2.00	8.17	8.34
Oyo	51.17		0.77	131.06	131.13	0.05	2.56	2.54
Plateau	16.23	18.17	11.94	80.88	92.49	14.36	4.98	5.09
Rivers	34.47	35.49	2.96	256.94	274.31	6.76	7.45	7.73
Taraba	130.76	133.38	2.00	216.04	217.77	0.80	1.65	1.63
National	1332.03	1389.08	4.28	7867.18	8202.63	4.26	5.91	5.91

11.12. Cotton

Cotton is a cash crop mainly cultivated in the Savannah Belts of Nigeria which is the North West and the South West zones. The major producing states are Bauchi, Kaduna, Kano, Katsina, Kebbi, Oyo, Sokoto and Zamfara. An estimated land area of 510.86 thousand hectares was cultivated in 2021, representing an increase of 0.10% over the 510.37 thousand hectares cultivated in 2020. Cotton recorded a marginal increase of 2.50% in 2021 over the production output of 2020 and 8.92%. However, most farmers in the producing states have shifted to crops that have higher yield and are in high demand in the market. The national average yield for cotton was 0.46 tons per hectare in 2020 and 0.48 tons per hectare in 2021.

Table 11.12: Land Area and Production Output for Cotton

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2020	2021	% Change	2020	2021	% Change	2020	2021
Adamawa	23.86	24.57	2.97	11.37	11.82	3.93	0.48	0.48
Bauchi	96.98	97.32	0.35	29.29	29.57	0.95	0.30	0.30
Borno	45.74	45.98	0.52	13.67	13.96	2.09	0.30	0.30
Gombe	32.82	33.07	0.75	11.52	11.59	0.57	0.35	0.35
Jigawa	35.50	36.00	1.40	7.84	7.96	1.58	0.22	0.22
Kaduna	8.45	8.32	-1.58	26.50	26.61	0.42	3.14	3.20
Kano	47.51	48.85	2.83	32.76	35.73	9.07	0.69	0.73
Katsina	62.88	63.36	0.76	29.72	30.91	4.02	0.47	0.49
Kebbi	39.17	39.13	-0.11	14.93	15.13	1.36	0.38	0.39
Oyo	2.67	2.88	7.80	2.40	2.69	11.94	0.90	0.93
Plateau	9.60	9.70	1.01	6.46	6.52	0.97	0.67	0.67
Sokoto	38.08	38.08	-0.01	27.11	27.21	0.38	0.71	0.71
Taraba	22.14	22.73	2.67	4.23	4.58	8.32	0.19	0.20
Yobe	32.86	32.98	0.37	12.68	13.20	4.12	0.39	0.40
Zamfara	12.11	7.92	-34.64	6.36	5.26	-17.31	0.53	0.66
National	510.37	510.86	0.10	236.83	242.75	2.50	0.46	0.48

11.13: Ginger

Ginger production figures in 2021 were almost the same (did not change significantly from the 2020 records) in Bauchi and Benue States while Kaduna and Nasarawa recorded an increase which led to the marginal increase at national level. The national average yield increased from 6.68MT per hectare in 2020 to 6.91MT per hectare in 2021. Major producing states are Kaduna (539.96MT), Nasarawa (68.25MT), Benue (65.95MT) with Bauchi State recording the lowest production output at 32.94MT.

11.16: Okra

Okro is one other important vegetable crops that is grown and cultivated in almost all states in the country. Okra production nationally was estimated to increase by 2.55% with 1,758,180 MT in 2020 to 1,803,030 MT in 2021. All states except Edo, Kebbi, Sokoto and Zamfara states recorded increase in the production of okro in 2021. The decrease in production could be due to insecurity.

Table 11.16: Land Area and Production Output for Okra

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2020	2021	% Change	2020	2021	% Change	2020	2021
Abia	18.7	22.63	21	20.7	24.84	20	1.11	1.10
Adamawa	33.26	33.26	0	19.71	19.71	0	0.59	0.59
Akwa Ibom	114.42	137.30	20	103.9	120.52	16	0.91	0.88
Anambra	26.18	26.18	0	20.16	20.16	0	0.77	0.77
Bauchi	26.19	26.71	2.00	25.82	25.05	3	0.99	0.94
Bayelsa	113.38	121.32	7.00	110.16	103.55	6	0.97	0.85
Benue	37.35	37.35	0	56.11	56.11	0	1.5	1.50
Borno	34.42	34.42	0	29.11	29.11	0	0.85	0.85
C/Rivers	130.12	144.43	11	126.25	142.66	13	0.97	0.99
Delta	44.05	44.49	1	106.97	109.11	2	2.43	2.45
Ebonyi	14.02	18.23	30	15.56	19.45	25	1.11	1.07
Edo	48.48	37.33	-23	124.25	94.43	-24	2.56	2.53
Ekiti	22.46	23.67	5.39	12.81	13.60		0.57	0.57
Enugu	24.73	27.20	10	21.39	23.53	10	0.86	0.86
FCT	74.53	76.42	2.54	56.46	58.15	3	0.76	0.76
Gombe	34.42	34.60	0.52	26.11	26.64	2.04	0.76	0.77
Imo	68.59	80.94	18	29.67	31.45	6	0.43	0.39
Jigawa	19.86	20.45	2.95	26.34	27.01	2.56	1.33	1.32
Kaduna	20.41	20.51	0.5	50.53	51.54	2	2.48	2.51
Kano	48.92	48.92	0	26.5	26.50	0	0.54	0.54
Katsina	16.74	16.74	0	17.9	17.90	0	1.07	1.07
Kebbi	37.89	36.37	-4	37.12	35.26	-5	0.98	0.97
Kogi	41.25	49.50	20.00	87.04	96.61	11	2.11	1.95
Kwara	10.19	10.47	2.76	87.53	90.15	2.99	8.59	8.61
Lagos	8.9	8.90	0	60.34	60.34	0	6.78	6.78
Nasarawa	24.15	26.21	8.51	28.91	31.79	9.95	1.2	1.21
Niger	6.28	7.01	11.7	16.63	20.80	25.1	2.65	2.97
Ogun	13.82	14.23	3	34.82	36.74	5.5	2.52	2.58
Ondo	41.79	42.59	1.92	12.91	13.17	2	0.31	0.31
Osun	48.18	55.84	15.9	18.3	18.85	3	0.38	0.34
Oyo	7.33	7.33	0	37.1	37.10	0	5.06	5.06

Plateau	32.12	32.12	0	52.3	52.30	0	1.63	1.63
Rivers	137.53	151.28	10	123.36	127.06	3	0.9	0.84
Sokoto	15.7	15.39	-2	23.26	22.10	-5	1.48	1.44
Taraba	23.3	24.00	3	40.44	50.15	24	1.74	2.09
Yobe	31.44	31.44	0	24.4	24.40	0	0.78	0.78
Zamfara	22.06	21.64748	-1.87	47.31	45.19	-4.049	2.14	2.09
National	1473.15	1567.439	2.96	1758.18	1803.03	2.55	1.19	1.15

11.17: Plantain/Banana

Plantain and banana are mostly produced in the southern parts of the country. In 2021, the production at national level was estimated at 7.4 MT and this shows an increase in production by 32.32% compared to 2020 with 5.58MT. This high increase was Ebonyi which was added to the list of plantain and banana producers in 2021.

Table 11.17: Land Area and Production Output for Plantain/Banana

State	Land Area ('000) Ha			Production ('000) MT		Yield (Ton/Ha)		
	2020	2021	% Change	2020	2021	% Change	2020	2021
Abia	18.8	18.8	0	139	139	0	7.39	7.39
A/Ibom	54.08	54.62	1	2005	2025.05	1	37.07	37.07
Bayelsa	67.12	80.54	20	391.1	496.70	27	5.83	6.17
Ebonyi	-	65.65	-	-	2104.20	-	-	53.42
Edo	153	120.87	-21	2295	1813.05	-21	15	15.00
Imo	40.55	42.17	4	355.5	412.38	16	8.77	9.78
Kwara	142.52	142.52	0	398.23	398.23	0	2.79	2.79
National	476.07	525.1768	10.32	5583.83	7388.61	32.32	11.73	14.07

12.0 LIVESTOCK PRODUCTION SITUATION

12.1 Livestock Population

The population of different livestock species for 2020 and 2021 are presented in Table 12.1a and 12.1b. Chicken recorded the highest population of 240,481,945 in 2021 as against 223,704,135 in 2020 representing an increase of 7.18%. The population of cattle increased by 0.81% from 20,585,153 in 2020 to 20,764,244 in 2021. Sheep population increased by 2,100,979 (2.5% of population in 2020), while goat increased by 1,798,160 (3.75% of population in 2020). Other livestock species recorded similar increase in population.

Figure 12.1 to 12.9 showed the twenty states in Nigeria with the highest populations of different species of livestock while the Table showed population of chickens accounting for 80.77% of the total population of the species in 2021. Kano State had the highest population of chicken with 15,642,379 local and exotic birds, followed by 14,518,130 birds in Oyo State (Fig 12.1). Figure 12.4 shows the twenty States in Nigeria with the most population of sheep accounting for 93.25% of the total population of the species in 2021. Katsina State had the highest population of goats (6,624,790) (Fig 12.2). The twenty states with the highest populations of cattle accounted for 98.03% of the species in 2021 (Fig 12.4). Zamfara State had the highest population of cattle (3,492,471). The trends of populations of some of the other livestock of economic importance to Nigeria are shown on Table 12.1a and 12.1b as well as Figure 12.5 to 12.9.

Table 12.1a: Livestock population in Nigeria for 2020 and 2021

Agro-ecological Zone/State	Cattle		Sheep		Goats		Pig		Chicken	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
North East										
Adamawa	1,223,654	1,234,300	1,688,801	1,731,021	1,902,384	1,949,943	772,759	803,669	457,615	491,936
Bauchi	580,199	585,246	254,515	260,878	439,911	450,909	.	-	6,006,264	6,456,734
Borno	1,850,517	1,866,617	2,722,402	2,790,462	2,774,931	2,844,305	.	-	1,968,994	2,116,669
Gombe	589,077	594,202	726,851	745,022	1,396,402	1,431,312	119,379	124,154	4,900,049	5,267,553
Yobe	1,081,204	1,090,611	1,482,064	1,519,116	2,236,422	2,292,332	70,861	73,695	10,084,605	10,840,950
North West										
Jigawa	2,395,293	2,416,133	5,589,905	5,729,653	6,293,158	6,450,487	.	.	7,927,208	8,521,748
Kaduna	714,685	720,903	1,759,082	1,803,059	2,117,090	2,170,017	751,094	781,137	8,866,900	9,531,917
Kano	2,191,435	2,210,500	4,134,056	4,237,407	4,409,190	4,519,420	.	-	14,551,050	15,642,379
Katsina	595,736	600,919	5,626,126	5,766,780	6,463,210	6,624,790	.	-	9,907,269	10,650,315
Kebbi	1,002,097	1,010,815	2,221,093	2,276,620	3,154,460	3,233,321	106,190	110,437	7,929,248	8,523,942
Sokoto	428,422	432,149	1,348,285	1,381,992	1,201,522	1,231,560	.	-	6,133,257	6,593,251
Zamfara	3,462,348	3,492,471	7,496,874	7,684,296	5,733,266	5,876,597	.	-	12,145,158	13,056,045
North Central										
Benue	131,370	132,513	858,484	879,946	4,663,109	4,779,686	1,196,073	1,243,916	3,531,637	3,796,510
FCT Abuja	32,723	33,008	205,922	211,070	1,057,669	1,084,110	32,585	33,888	2,725,834	2,930,271

Kogi	145,652	146,919	1,218,836	1,249,307	2,754,554	2,823,418	67,403	70,099	10,424,067	11,205,872
Kwara	1,053,980	1,063,150	419,532	430,021	2,061,488	2,113,025	.	-	2,962,894	3,185,111
Nasarawa	1,431,243	1,443,694	1,076,479	1,103,391	1,859,775	1,906,269	338,055	351,577	4,283,512	4,604,775
Niger	241,513	243,614	798,942	818,915	1,708,405	1,751,115	39,975	41,574	11,216,375	12,057,603
Plateau	779,677	786,460	2,368,712	2,427,930	4,369,439	4,478,675	1,866,367	1,941,022	9,645,535	10,368,950
Taraba	324,023	326,842	1,169,845	1,199,091	1,158,925	1,187,898	350,788	364,820	7,841,314	8,429,413
South West										
Ekiti	35,292	35,600	73,991	75,841	1,107,308	1,134,990	143,775	149,526	134,534	144,624
Lagos	12,980	13,305	16,413	17,069	6,418,242	6,899,610
Ogun	15,075	15,206	204,788	209,908	1,139,005	1,167,480	93,239	96,969	8,265,825	8,885,762
Ondo	36,735	37,055	166,731	170,899	2,651,289	2,717,572	1,033,557	1,074,899	1,544,632	1,660,479
Osun	.	.	684,679	701,796	4,270,965	4,377,739	210,938	219,375	3,285,253	3,531,647
Oyo	62,476	63,020	727,064	745,240	3,452,653	3,538,969	276,542	287,604	13,505,237	14,518,130
South East										
Abia	.	.	223,659	229,250	503,363	515,947	442,846	460,560	1,525,415	1,639,821

Anambra	.		161,632	165,673	523,601	536,691	.	-	4,702,140	5,054,801
Ebonyi	14,455	14,581	223,679	229,271	1,144,434	1,173,045	.	-	7,268,929	7,814,098
Enugu	2,530	2,552	164,134	168,237	1,604,942	1,645,065	88,662	92,209	6,419,481	6,900,942
Imo	.	-	90,540	92,804	1,720,804	1,763,824	286,380	297,835	11,017,751	11,844,083
South South										
AkwaiBom	.		994,770	1,019,640	2,338,433	2,396,894	527,210	548,298	3,569,845	3,837,583
Cross River	.		136,132	139,535	255,665	262,057	45,094	46,898	3,033,323	3,260,822
Delta	30,285	30,548	235,674	241,566	2,143,738	2,197,332	42,727	44,436	2,506,303	2,694,276
Edo	133,456	134,617	638,874	654,845	1,379,285	1,413,767	22,976	23,895	5,114,710	5,498,313
Rivers		0	33,239	34,070	2,035,384	2,086,269	.		1,883,731	2,025,011
Total	20,585,153	20,764,244	47,926,393	49,124,553	84,039,154	86,140,133	8,941,888	9,299,563	223,704,135	240,481,945

Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

Table 12.1b: Livestock Population in Nigeria for 2020 and 2021

Agro-ecological Zone/State	Guinea fowl		Turkey		Donkey		Rabbits		Horse	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
North East										
Adamawa	161,109	169,165	15,870	16,664	.		47,575	49,478	.	
Bauchi	936,458	983,281	.		1,450	1,452	.		.	
Borno	41,688	43,773	.		143,851	143,994	.		16,150	16,166
Gombe	1,102,812	1,157,953	.		14,255	14,269	.		.	
Yobe	3,157,622	3,315,503	42,027	44,128	1,105	1,106	.		.	
North West										
Jigawa	1,350,863	1,418,407	78,174	82,083	25,160	25,185	.		12,887	12,900
Kaduna	325,966	342,265	
Kano	2,513,402	2,639,072	590,064	619,567	136,098	136,234	.		62,364	62,427
Katsina	1,967,662	2,066,045	.		87,324	87,412	.		.	
Kebbi	2,812,827	2,953,469	.		82,953	83,036	.		4,202	4,206
Sokoto	1,852,934	1,945,581	19,195	20,155	153,811	153,964	.		.	
Zamfara	5,433,466	5,705,140	.		331,973	332,305	66,641	69,306	6,926	6,933
North Central										
Benue	64,206	67,416	13,319	13,985	.		72,967	75,886	.	
FCT Abuja	20,863	21,906	30,620	32,151	.		.		.	
Kogi	954,439	1,002,161	274,472	288,196	.		.		.	
Kwara	353,967	371,665	

Nasrawa	621,340	652,407	301,285	316,349	2,380	2,382	32,663	33,970	.	
Niger	2,152,166	2,259,774	317,379	330,074	.	
Plateau	327,378	343,747	169,602	178,082	.	.	59,193	61,561	.	
Taraba	676,148	709,955	316,017	331,818	
South West										
Ekiti	632	664	129	135	.	.	76,757	79,827	.	
Ogun	63,095	66,250	62,517	65,643	.	.	58,399	60,735	.	
Ondo	.	.	18,193	19,103	.	.	83,542	86,884	.	
Osun	.	.	9,462	9,935	
Oyo	189,616	199,097	
South South										
Abia	164,300	172,515	13,269	13,932	.	.	39,620	41,205	.	
Anambra	.	.	290,481	305,005	
Ebonyi	5,757	5,987	.	
Enugu	34,977	36,726	215,894	226,688	
Imo	40,257	42,269	97,072	101,926	.	.	38,248	39,778	.	
South South										
Akwa- Ibom	327,781	344,170	58,251	61,163	.	.	116,210	120,858	.	
Delta	.	.	14,753	15,491	.	.	4,342,955	4,516,674	.	
Edo	5,610	5,890	149,477	156,951	.	.	83,823	87,176	.	
Rivers	20,236	21,046	.	
Total	27,653,588	29,036,267	2,780,144	2,919,151	980,359	981,339	5,461,965	5,680,444	102,529	102,631

Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

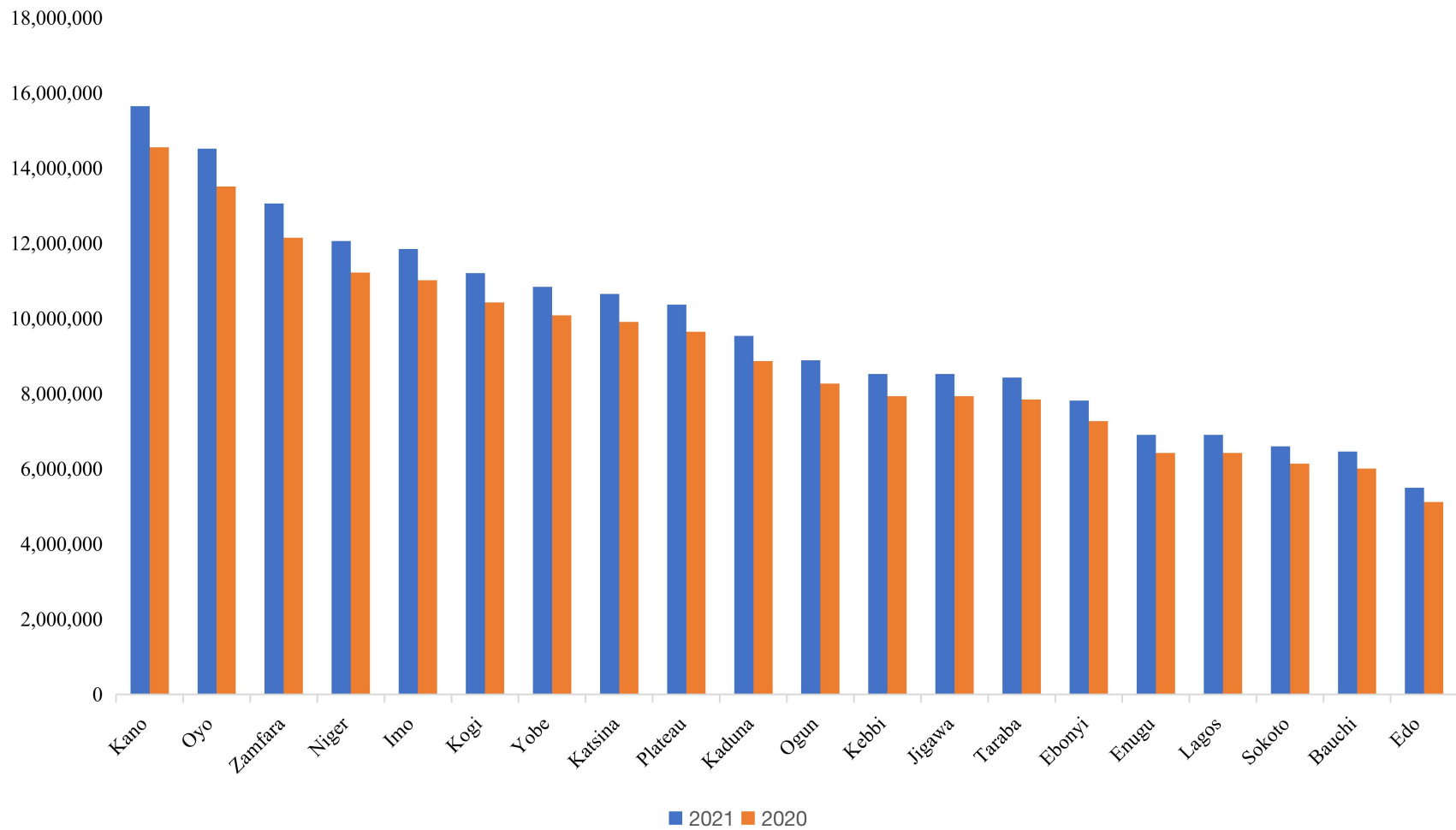


Figure 12.1: Twenty States in Nigeria with the most population of chickens accounting for 80.77% of the total population of the species in 2021. Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

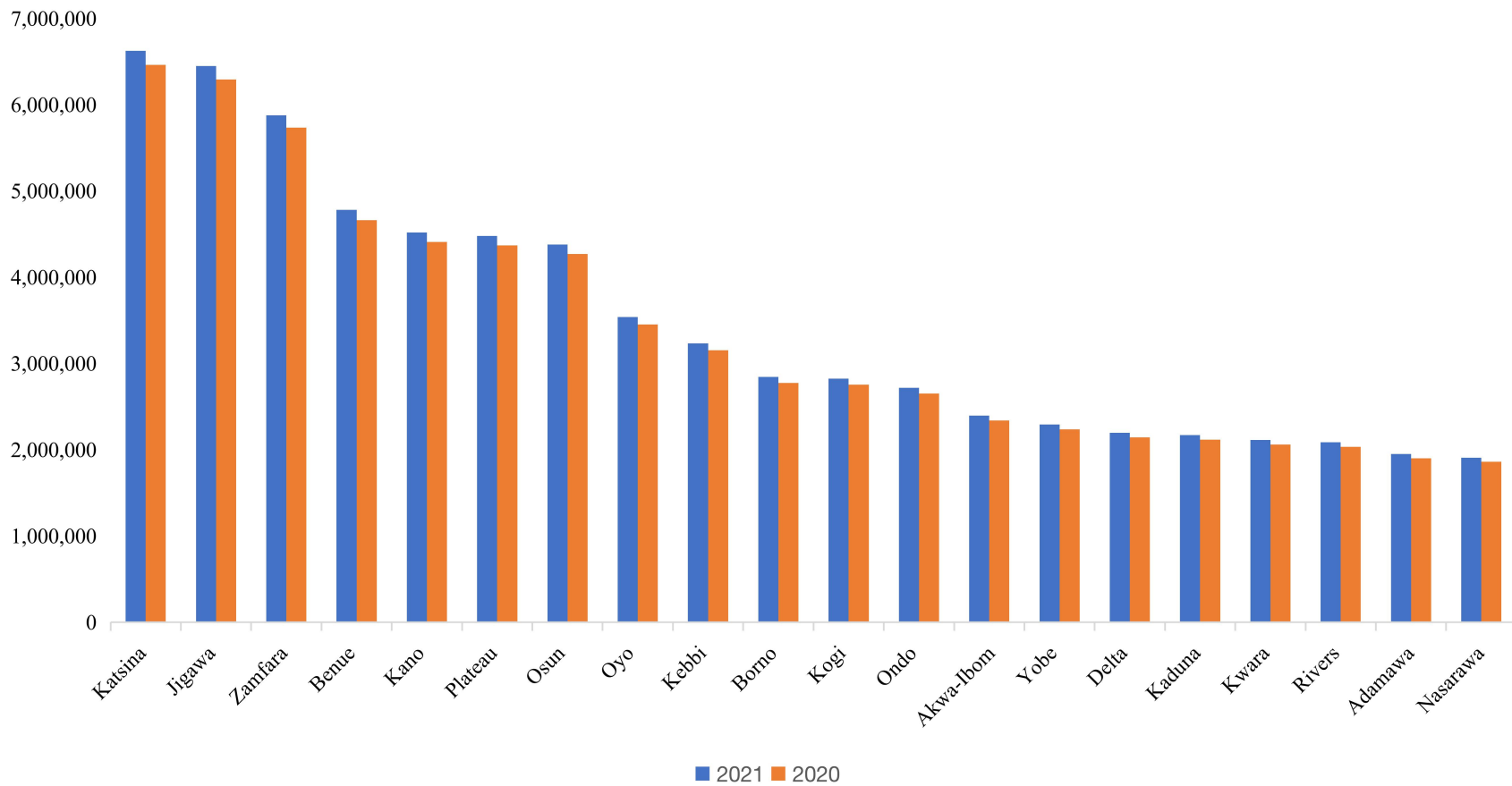


Figure 12.2: Twenty States in Nigeria with the most population of goats accounting for 80.54% of the total population of the species in 2021. Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

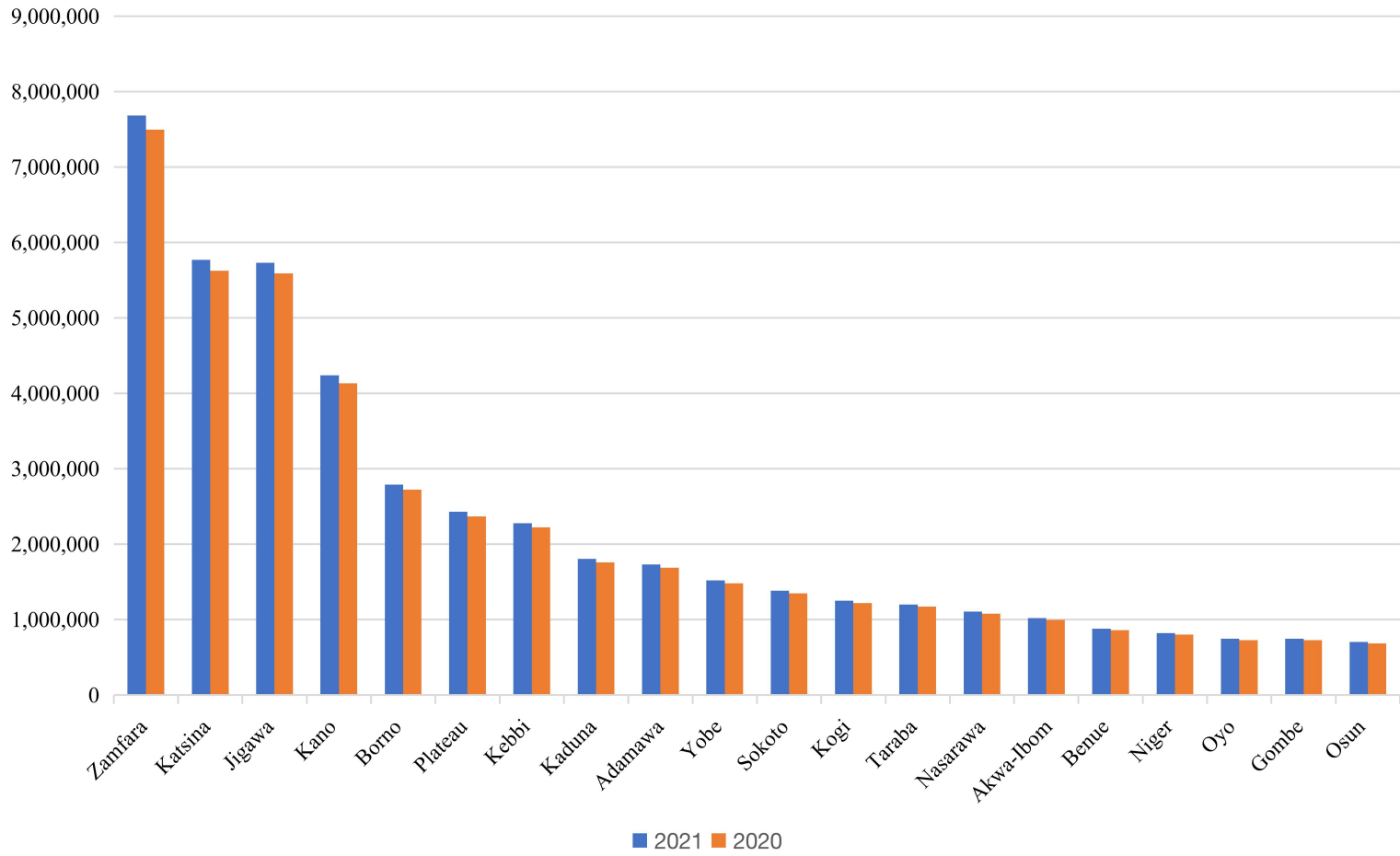


Figure 12.3: Twenty States in Nigeria with the most population of sheep accounting for 93.25% of the total population of the species in 2021. Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

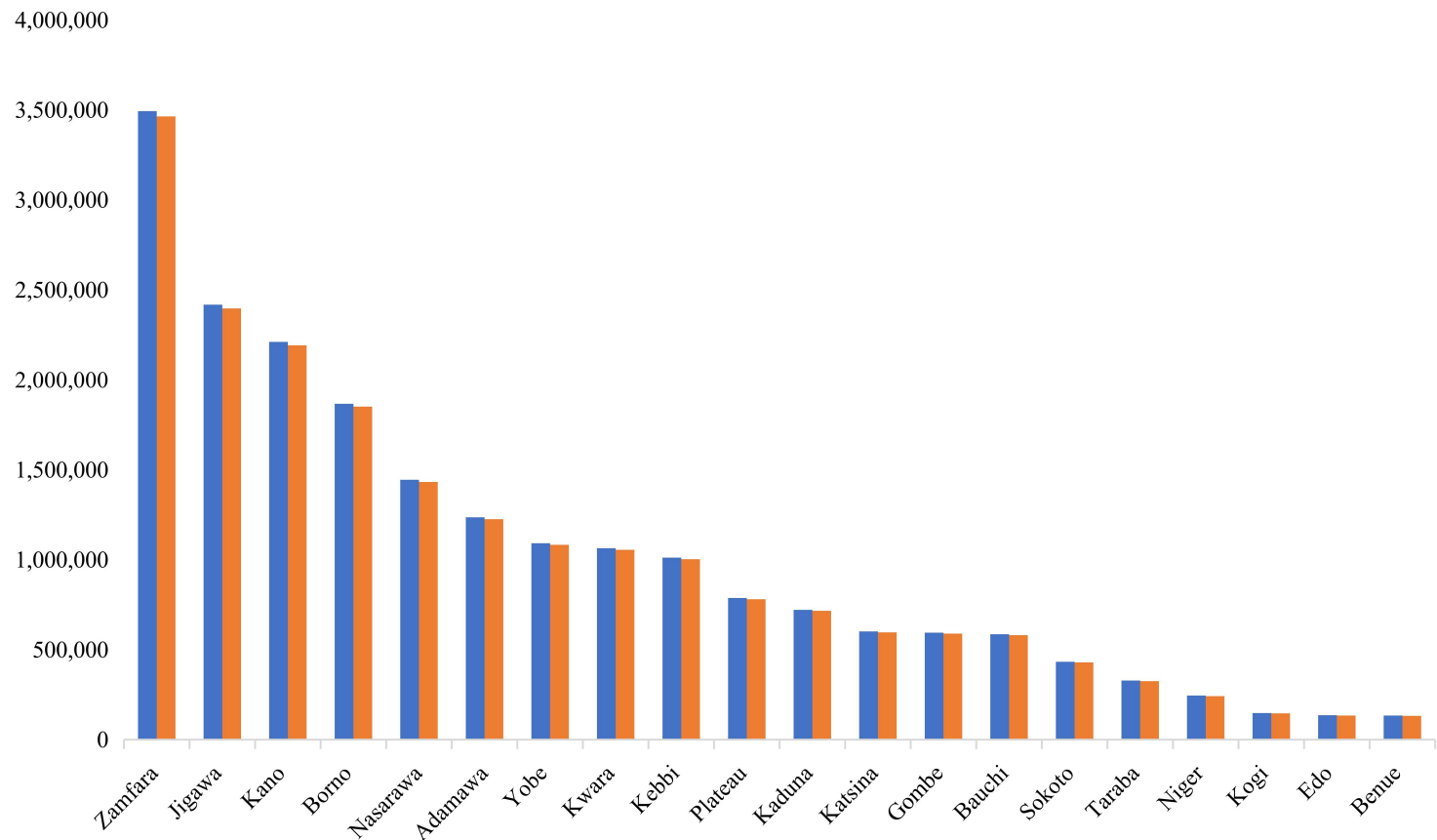


Figure 12.4: Twenty States in Nigeria with the most prominent cattle population in Nigeria in 2021 accounting for 98.03% of the population Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

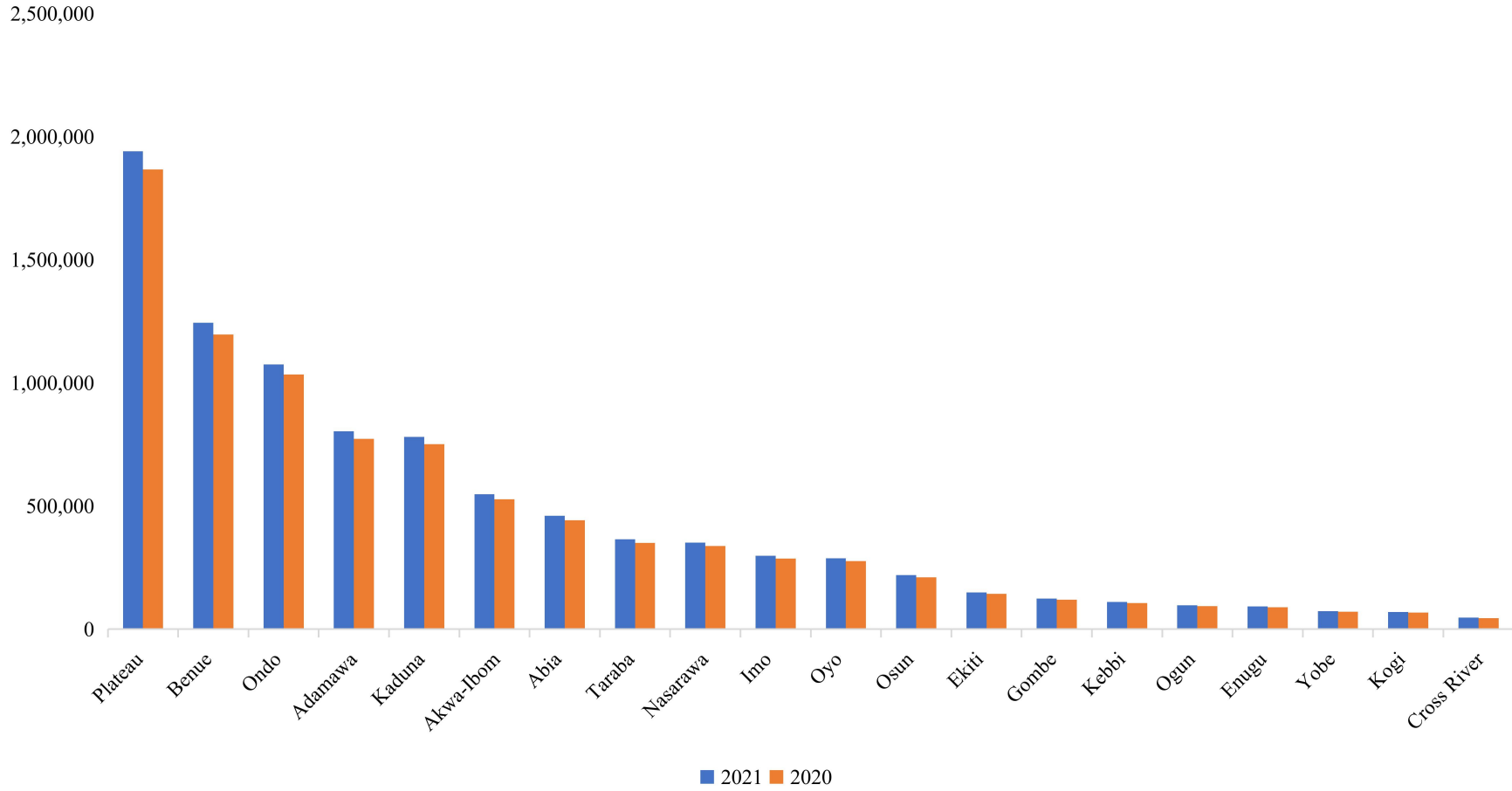


Figure 12.5: Twenty States in Nigeria with the most population of pigs accounting for 98.27% of the total population of the species in 2021. Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

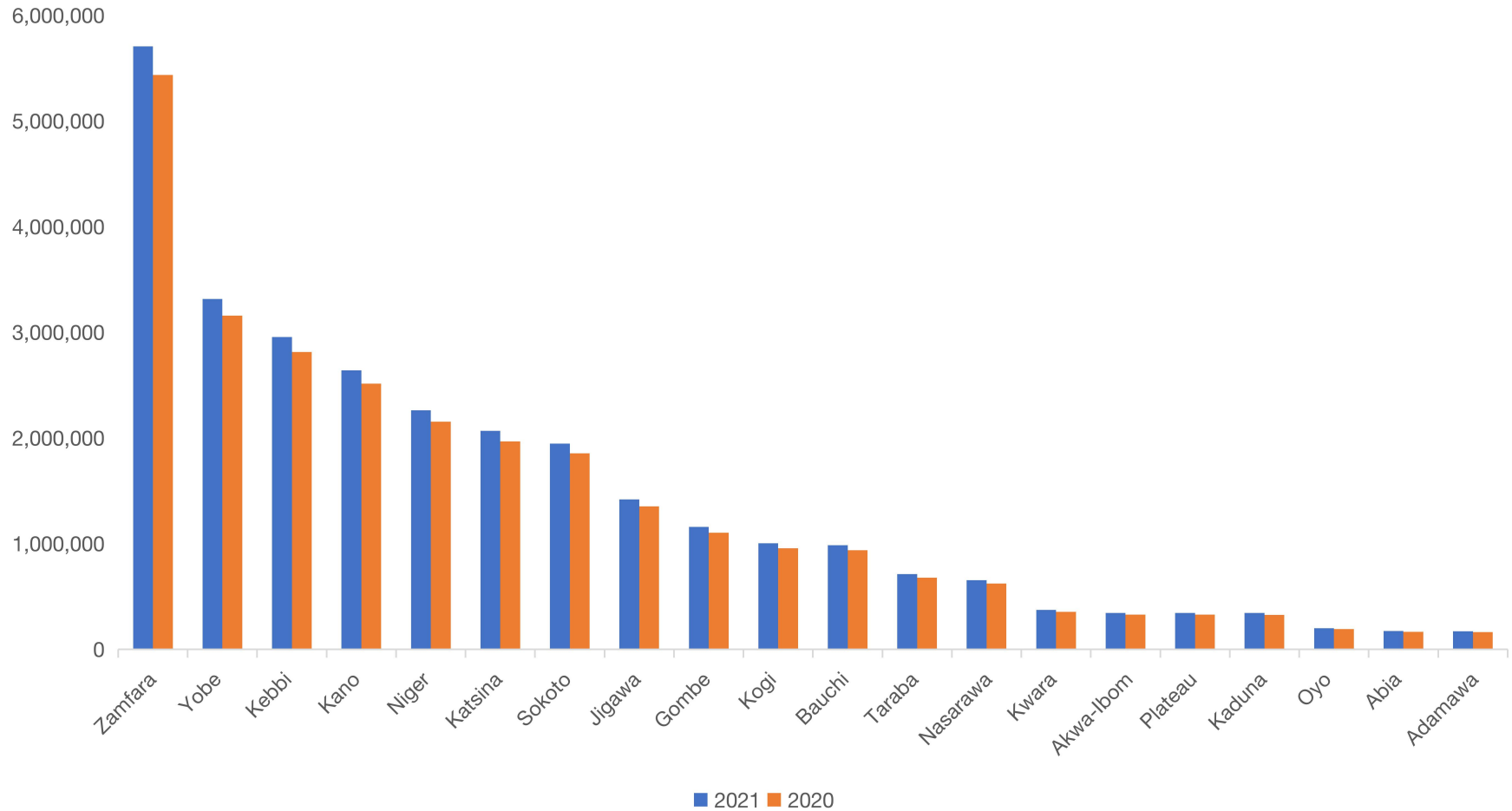


Figure 12.6: Twenty States in Nigeria with the most population of guinea fowl accounting for 99.02% of the total population of the species in 2021.
Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

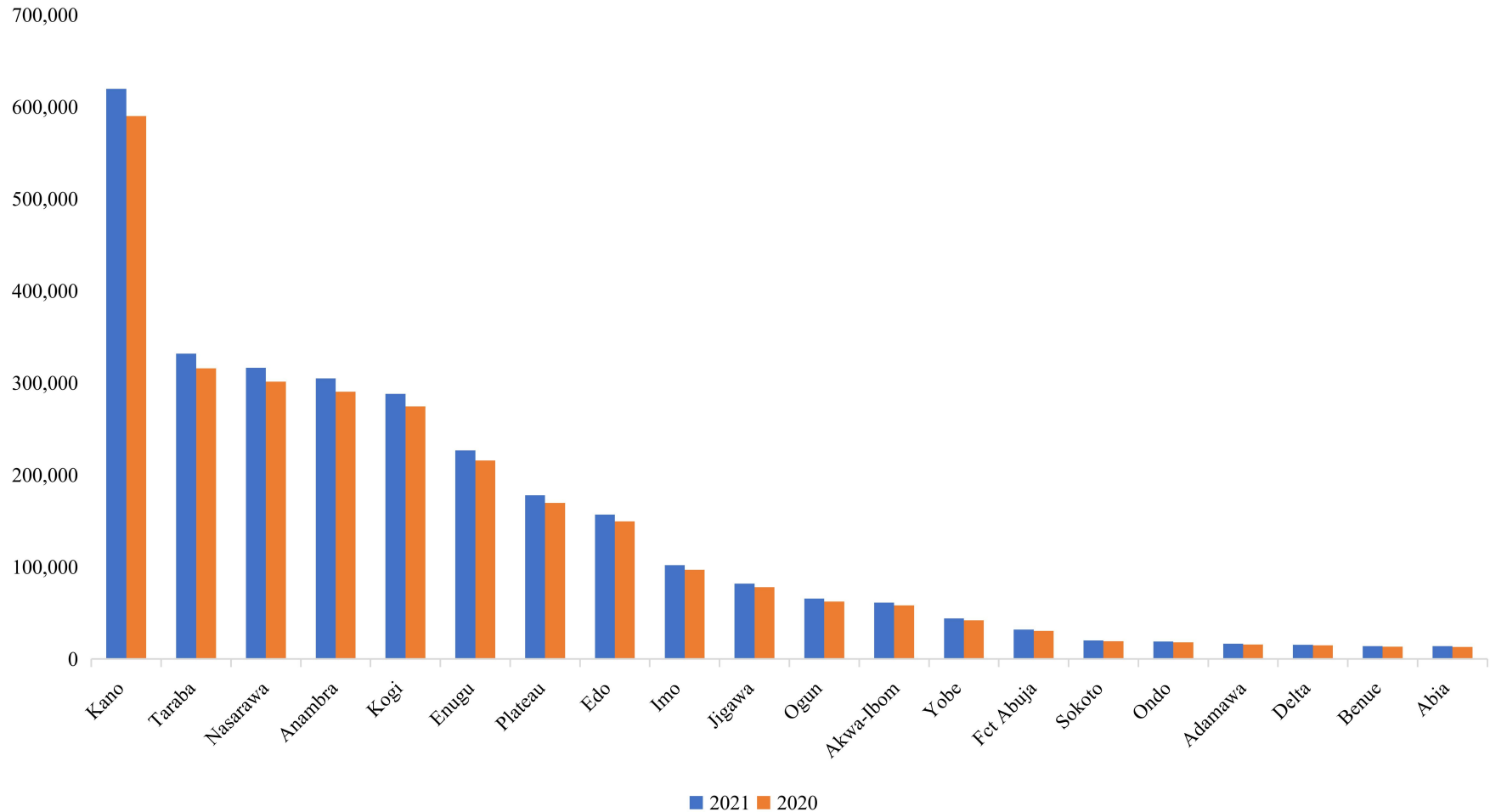


Figure 12.7: Twenty States in Nigeria with the most population of Turkey accounting for 84.47% of the total population of the species in 2021.
 Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

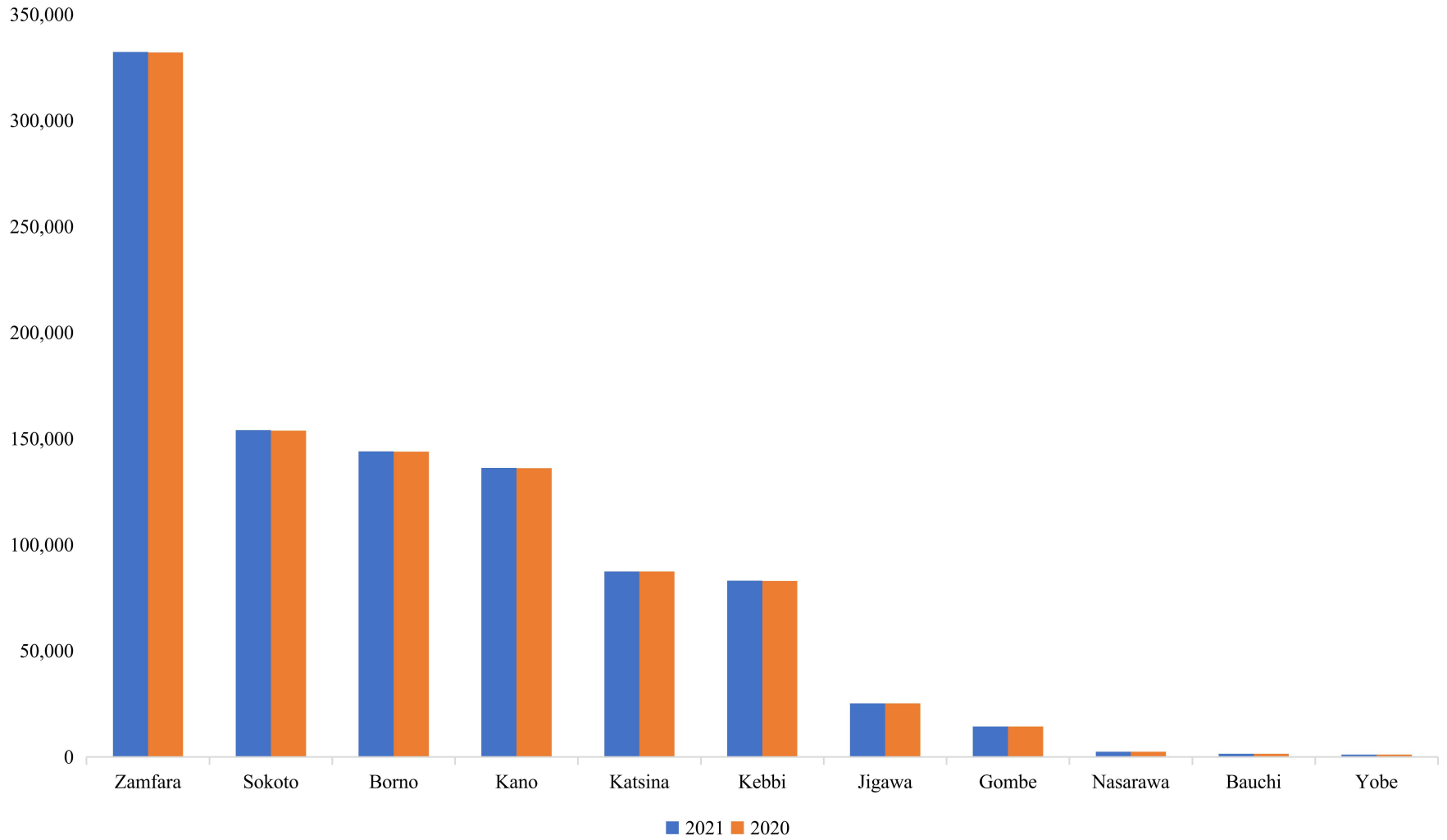


Figure 12.8: Population of donkeys as found in 11 States in Nigeria in 2021. Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

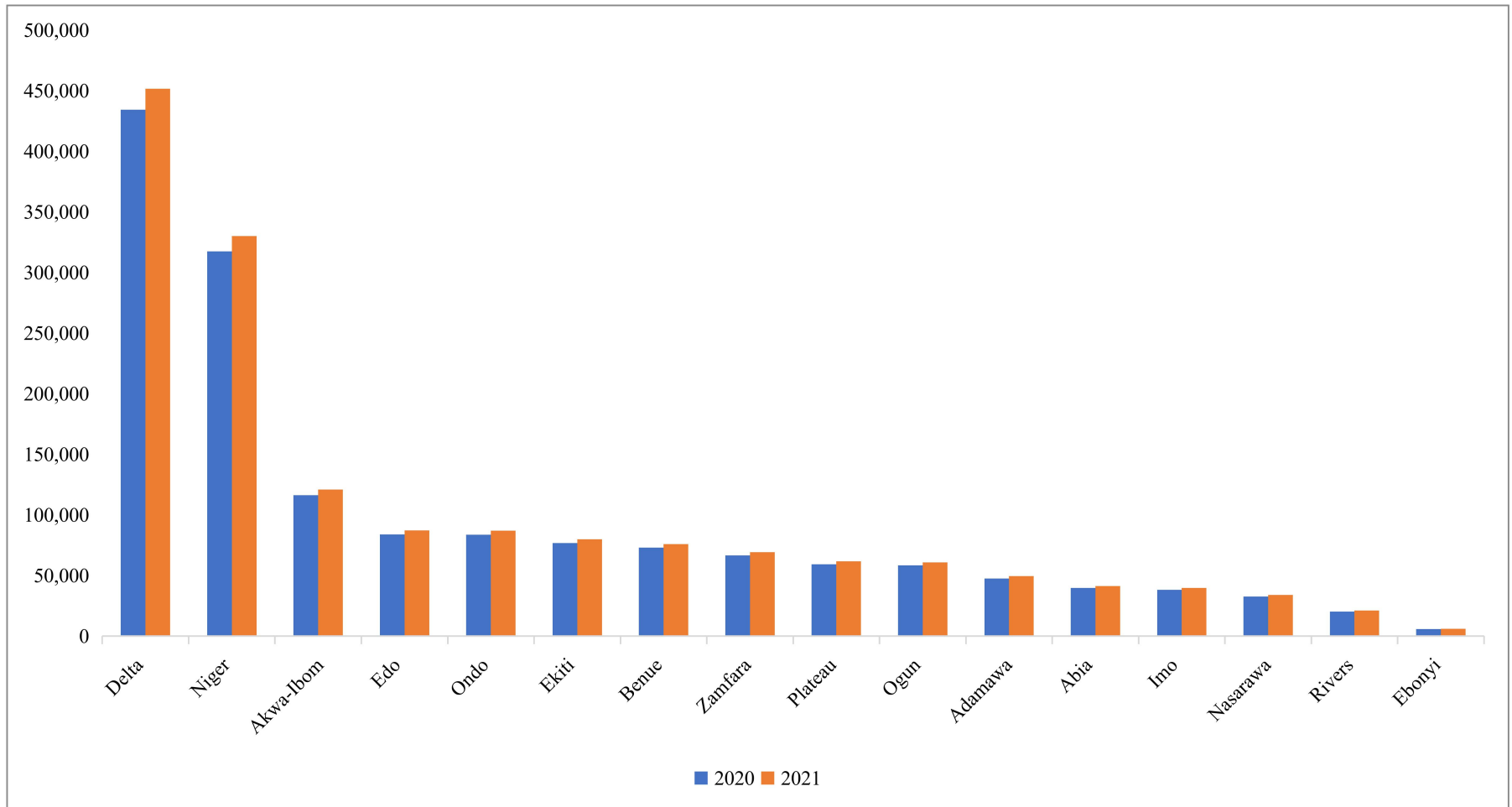


Figure 12.9: Population of rabbits as found in 16 States in Nigeria in 2021. Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

12.2 Livestock Pests and Diseases

Pests and diseases of major livestock species are presented in Table 12.2a to 12.2e as documented by states in 2021.

Table 12.2a showed the livestock pests and diseases affecting cattle. Contagious Bovine Pleuropneumonia (CBPP) was recorded across 13 States namely Gombe, Bauchi and Adamawa (North East), Kano, Jigawa and Sokoto (North West), Kwara, Kogi, Nassarawa, Taraba and FCT (North Central), Osun and Oyo (South West). Jigawa State had the highest (192,000) prevalence of CBPP followed by Taraba State (87,418) but Taraba State had the highest mortality rate (18,644). Mass vaccination against CBPP was instituted by Jigawa, Kano, and Gombe States and to a lesser extent in Bauchi State. Foot and Mouth Disease (FMD) also affected nine (9) States across 5 zones (that is, excluding the South South). Kogi State had the highest mortality due to FMD. Incidence of Tuberculosis (TB) occurred majorly in North Central; FCT and Kogi (with mortality of about 50 cattle). Other diseases which affected cattle included but not limited to Helminthiasis, Fascioliasis, Trypanosomiasis, Black quarter and foot rot. Infectious Bovine Viral Diarrhoea (IBVD) occurred only in Katsina State with a total mortality of 200 animals.

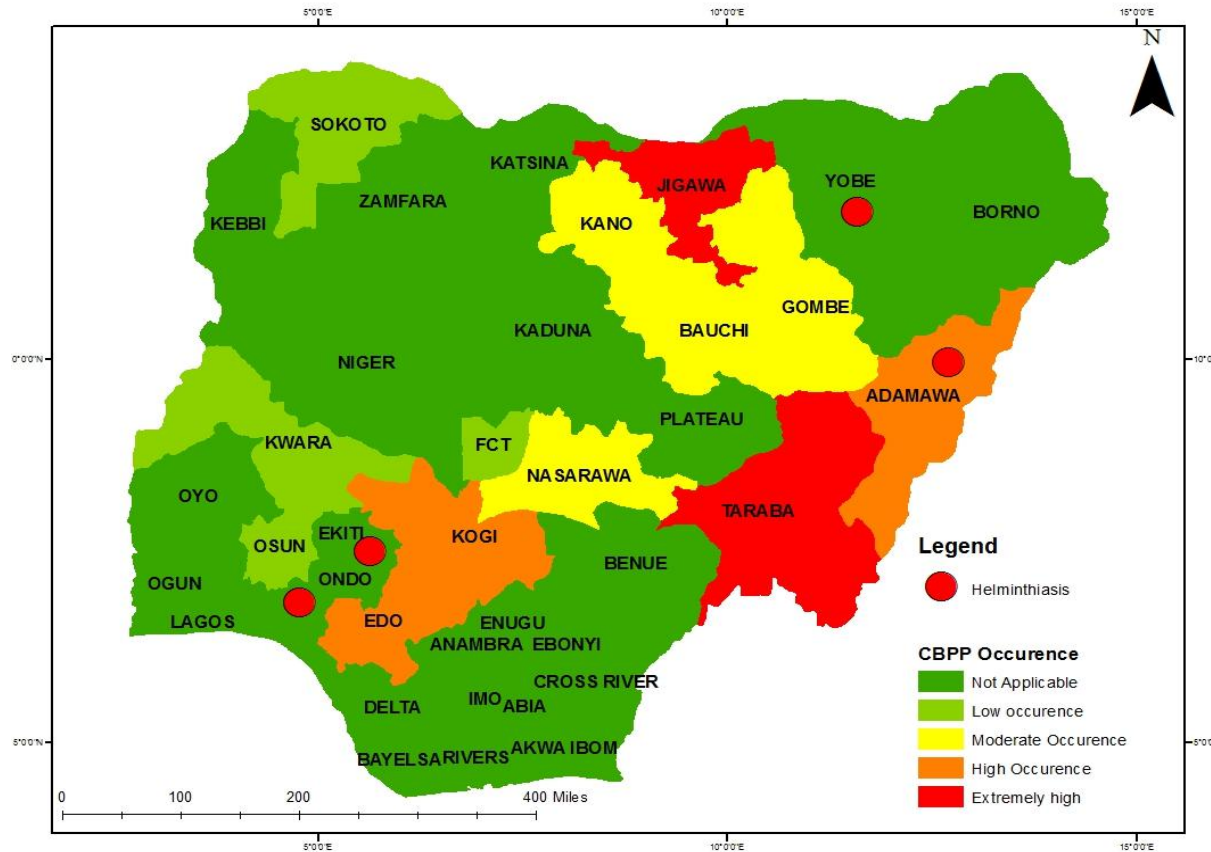


Figure 12.10: States with incidences of CBPP and Helminthiasis in 2021

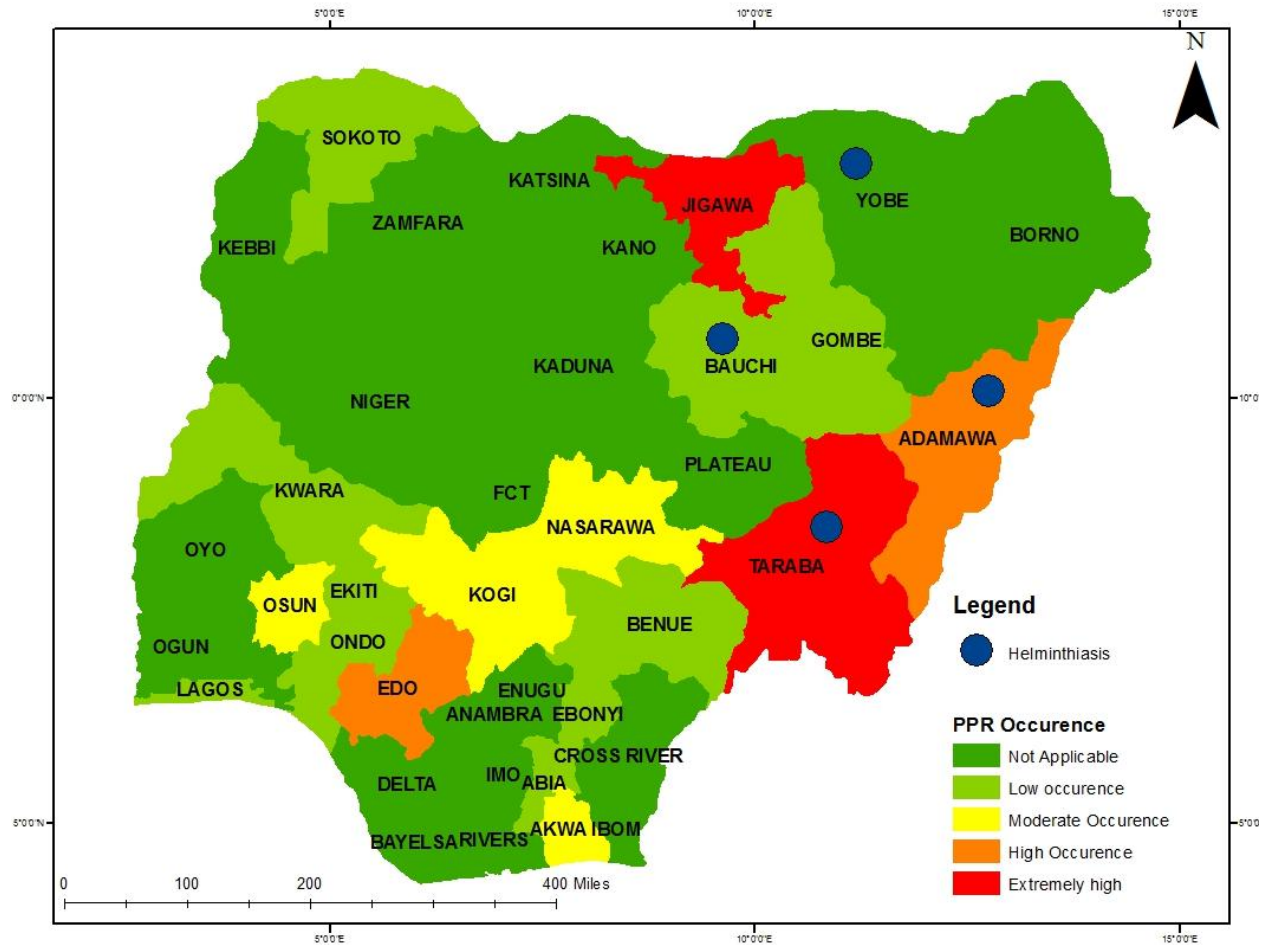


Figure 12.11: States with incidences of PPR and Helminthiasis in 2021

Fig. 12.11 shows the States with the prevalence of *Peste des Petits Ruminants* (PPR) and *Helminthiasis*. Table 12.2b shows the prevalence of PPR in eighteen (18) states across the six (6) zones. The effect of the disease was more severe in Taraba and Kogi states with more than 13,333 goats and 3,346 sheep dead in Taraba State and 2,000 sheep and 4,000 goats dead in Kogi State respectively. and

Eight (8) States also reported the incidence of *helminthiasis* of varying degree of severity but with no mortality recorded/reported. Other diseases that affected sheep and goats include Orf, Listeriosis, Mange, FMD, Foot rot and Pox. Abia and Ekiti States recorded Dermatitis and Sheep scard respectively. PPR vaccination was done in few states (Gombe, Ondo, Lagos and Akwa Ibom). Treatment and vaccination were provided by the state government as well as individual farmers to curb these diseases.

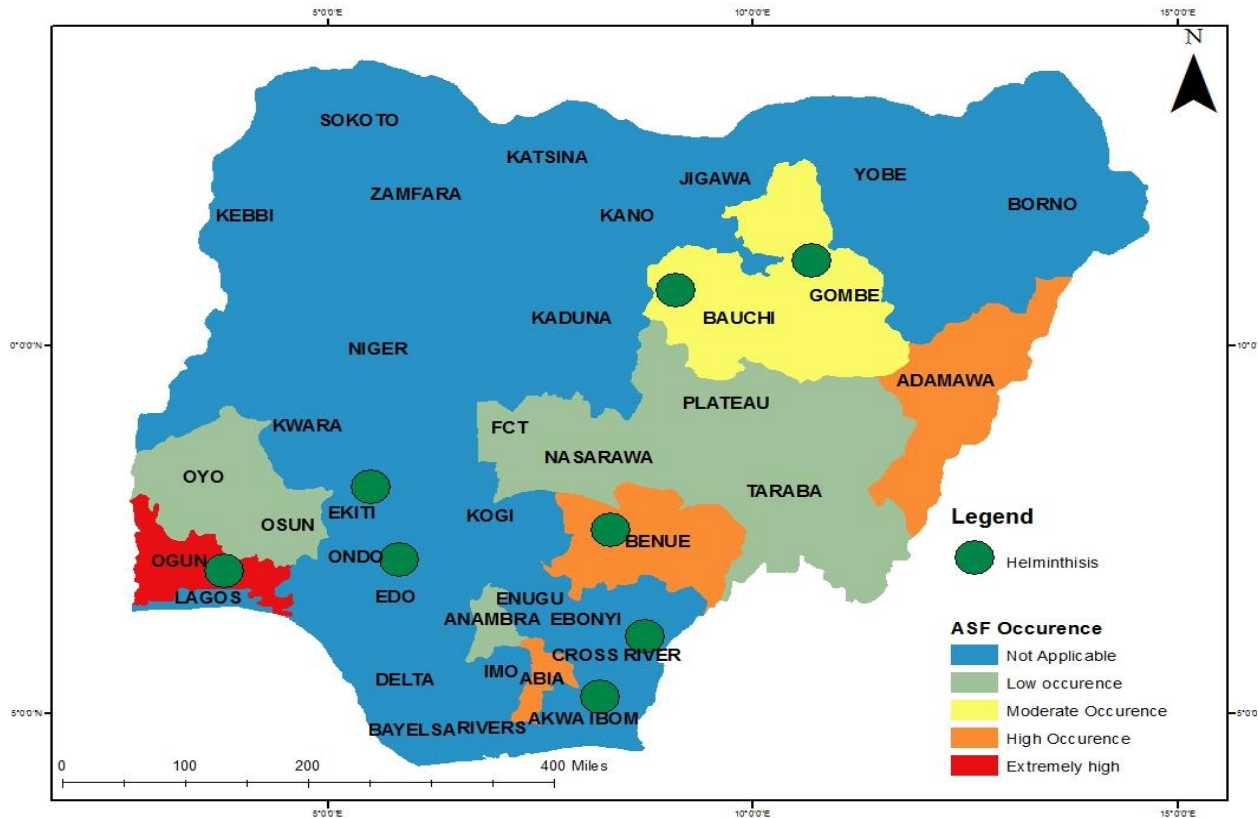


Figure 12.12: States with incidence of ASF and Helminthiasis in 2021

Table 12.2d shows the prevalence of swine (pig) diseases across the six zones. African Swine Fever (ASF) is a highly contagious and deadly viral disease affecting both domestic and wild pigs of all ages. The ASF a major disease that affected large population of pigs in Nigeria in 2021 are shown in Figure 12.12. Nineteen (19) States and the FCT (excluding the North West) reported incidences of ASF in 2021. Lagos State recorded the highest mortality (80,000) pigs due to ASF followed by Ogun State (32,525 pigs) and Edo State (15,000 pigs). Other States that reported moderate ASF mortality include Adamawa (3,699 pigs), Abia (3,300 pigs), Taraba (2,617 pigs) and Ebonyi (400 pigs). Pigs were also affected by *Helminthiasis* in nine (9) states excluding the the states in the North West and the South East. Affected pigs were dewormed to contain *Helminthiasis*.

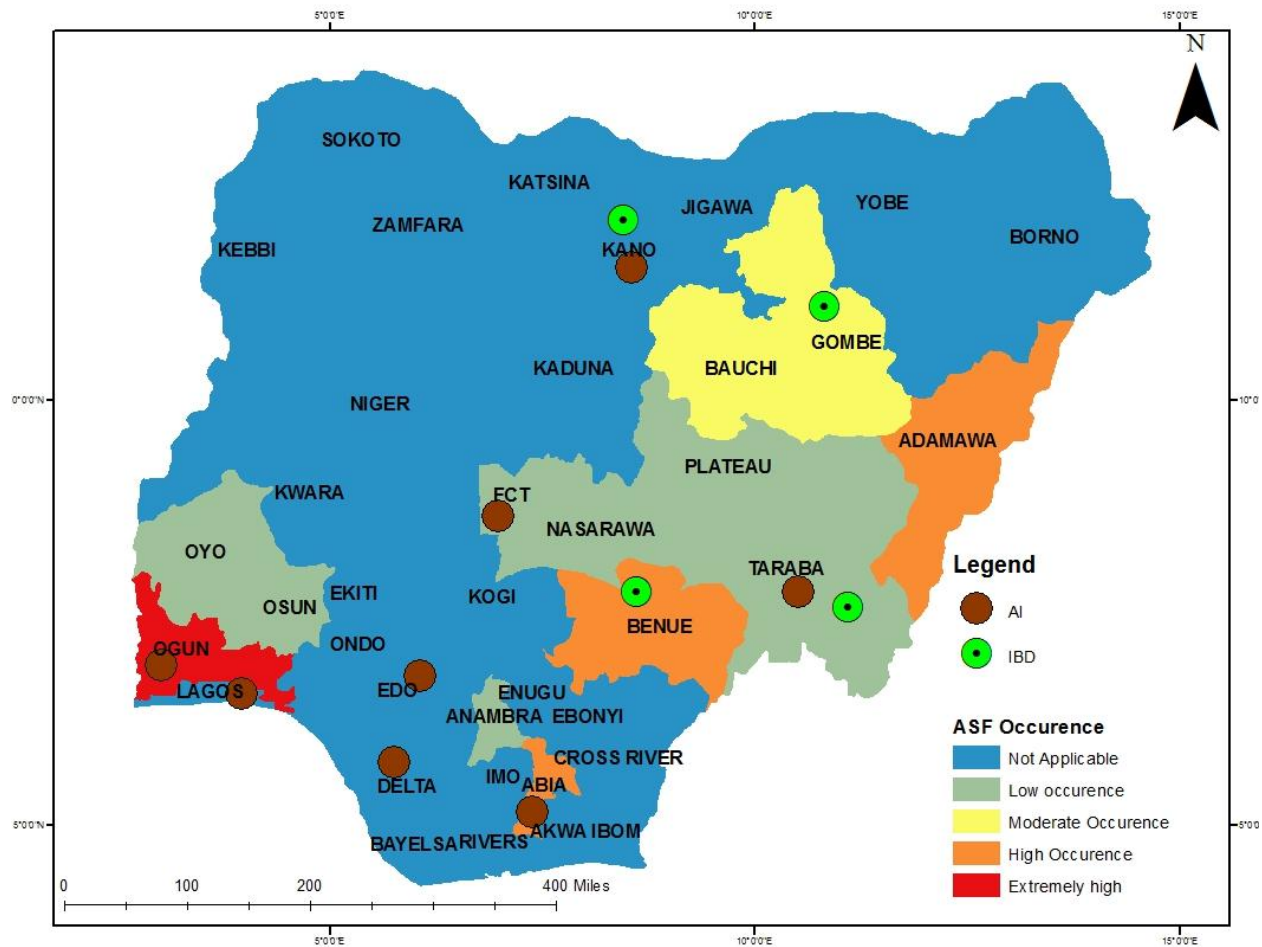


Figure 12.13: States with incidences of NCD, AI and IBD in 2021

Table 12.2c shows the incidence of poultry diseases across the zones. Twenty-five (25) states and the FCT reported different diseases of poultry as shown in Figure 12.13. Twenty (20) states were affected by Newcastle Disease (NCD), 9 states experienced Coccidiosis and also Infectious Bursal Diseases (IBD). Other poultry diseases reported included Avian Influenza (AI), Fowl typhoid, NCD and Coccidiosis.

Five States (Taraba, Kano, Ogun, Abia and Edo) reported a combination of NCD and AI. Kano and Lagos states had the highest mortality rate of birds from AI infection in 2021. Biosecurity measures and disease surveillance were intensified across the states that had incidence of AI. In addition, total depopulation of the birds and decontamination of the farm facilities were done in the AI affected areas. Vaccination was massively done across the States against NCD, IBD and Fowl pox. Supportive therapy with antibiotics and anti-coccidial drugs was instituted in majority of the States that reported NCD, Fowl typhoid and Coccidiosis.

Table 12.2a: Livestock Pests and Diseases (Cattle)

Zone/State	Disease or Pest	Location/ (*no of farms affected)	Total stock of animal	Number of animals affected	Number vaccinated or treated	Number culled due to infection	Mortality	Intervention
North East								
Bauchi	CBPP	Bauchi	3,040	3,040	3,000	23	17	-
	Trypanosomiasis	Katagum	1,200	1,200	1,140	40	20	-
	CPE	Ningi	800	800	750	15	35	-
Borno	Trypanosomiasis	Government House	85	20	85	7	2	Treatment by Government
Gombe	CBPP	state-wide	3,091	2,491	899,668	189	-	Vaccination
	FMD		827	627		40	-	-
Adamawa	CBPP	Yola South	18,015	18,015	-	-	52	-
	FMD		9,256	9,256	-	-	7	-
	Helminthiasis	state-wide	82,011	82,011	-	-		-
North West								
Jigawa	CBPP	state-wide	192,000	192,000	601,000	-	275	-
Kano	CBPP	Gwarzo, Ajingi, Wudil, Karaye, Bebeji. (*6)	-	3,000	700,000	200	25	Mass vaccination statewide
	Black Quarter	Rano (*2)	-	200	500	0	0	Ring vaccination
	Ecto and Endo Parasites	state-wide	1,000	1,000	1,000	0	0	-
Katsina	Foot rot	Dutsinma	-	-	-	-	-	-
	IBVD	Katsina	-	-	-	-	200	-
Sokoto	CBPP	state-wide	150	-	-	-	-	Surveillance and control
North Central								
FCT	TB	Abuja	-	126	-	-	-	-
	CBPP		-	110	-	-	-	-
	Fascioliasis		-	448	-	-	-	-
	Dermatophilosis		-	92	-	-	-	-
Kogi	CBPP	state-wide	2,000,000	20,000	70,000	5,000	10,000	
	TB		40,000	25,000		1,000	50	
	FMD		3,000,000	1,000,000		50,000	600	
Kwara	CBPP	-	-	-	-	-	-	-
	FMD	-	-	-	-	-	-	-
Taraba	FMD	state-wide	158,663	158,663		7,222	15,010	-

	CBPP		87,418	87,418	198,634	21,969	18,644	-
	LSD		6,674	6,674		941	34	-
Nasarawa	CBPP	state-wide	1,012	3,584	2,182	1,422	-	-
South West								
Ekiti	Helminthiasis	Central abattoir	30	10	10			Treatment
Ogun	Ectoparasite	Olorunda (*1)	-	70	70	-	-	-
	FMD	Ayedire. (*1)	-	60	60	-	5	
	Mange	-	-	-	-	-	-	-
Ondo	Tick infection	state-wide	500	400	300	100	0	Acaricide spray
Osun	Ectoparasite	Olorunda (*1)	-	70	70	-	-	-
	FMD	Ayedire (*1)	-	60	60	-	5	-
	CBPP	-	-	-	-	-	-	-
Oyo	Pneumonia	-	-	156	468	-	-	-
South East								
Ebonyi	FMD	Abakaliki, Ebonyi. (*7)	-	50	-	-	-	-
	Trypanosomiasis	Izi, Ebonyi (*6)	-	20	-	-	-	-
	Fascioliasis	Abakaliki, Ebonyi. (*7)	-	40	-	-	-	-
South South								
Akwa Ibom	Tick infestation	Uyo	210	200	200	10	0	Ectoparasite control
		Itu	158	142	142	0	16	
Edo	Foot rot	state-wide. (*30)	-	77,000	-	-	-	Treatment
	Helminthiasis	state-wide. (*70)	-	350,000	-	-	-	Deworming
	CBPP	state-wide (*20)	-	60,000	-	-	-	Vaccination
	Trypanosomiasis	state-wide. (*20)	-	60,000	-	-	-	Treatment

CPE: *Clostridium perfringens* Enterotoxemia, LSD: Lumpy Skin Disease

Table 12.2b: Livestock Pests and Diseases (Sheep and Goats)

Zone/State	Disease or Pest	Location/ (*no of farms affected)	Total stock of animal	Number of animals affected	Number vaccinated or treated	Number culled due to infection	Mortality	Intervention
North East								
Bauchi	Sheep: Helminthiasi	Kirfi	3,000	3,000	2,500	320	180	-
	Mastitis	Darazo	560	560	500	42	18	-
	Listeriosis	Warji	2,900	2,900	2,850	31	19	-
	Goat: Orf	Giade	2,100	2,100	2,010	68	22	-
	PPR	Ganjuwa	4,900	4,900	4,700	175	25	-
	Mange	Dambam	2,180	2,180	2,000	150	30	-
Taraba	Sheep: PPR	Statewide	66,818	66,818	84,034	-	3,346	-
	Foot rot		12,611	12,611	-	-	-	-
	Goats: PPR		108,836	108,836	92,488	28,611	13,333	-
	Foot rot		34,001	34,001	-	-	-	-
Adamawa	Sheep: PPR	Jada	35,000	35,000	12,500	-	80	-
	Helminthiasis	Yola South	20,000	20,000	-	-	12	-
	Pneumonia	Fufure	120	120	-	-	120	-
	Goats: PPR	Gombi	40,000	40,000	15,000	-	-	-
	Helminthiasis	Mubi	15,500	15,500	-	-	-	-
	Goat Pox	Hong	620	620	-	-	-	-
Borno	Pox	Government House	500	70	500	40	7	Treatment by Government
Gombe	Sheep: PPR	state-wide	2,127	1,187	133,035	60	16	Vaccination
	Goat: PPR		2,720	1,840	353,285	46	20	Vaccination
North West								
Jigawa	Sheep: PPR	state-wide	102,000	102,000	110,550	-	-	Mass vaccination
	Goats: PPR	state-wide	215,000	215,000	701,050	-	-	
	Goats: PPR	state-wide (*9)		750	800,000	-	-	
	Ecto and Endo Parasites	state-wide	3,000	3,000	3,000	0	0	
Sokoto	Sheep: PPR	state-wide	1,140	-	-	-	-	Surveillance and control
	Goats: PPR		1,140	-	-	-	-	

Table 12.2b Cont'd: Livestock Pests and Diseases (Sheep and Goats)

Zone/ State	Disease/Pest	Location/ (*no of farms affected)	Total stock of animal	Number of animals affected	Number vaccinate d or treated	Number culled due to infection	Mortality	Intervention
North Central								
FCT	Sheep: Mange	FCT	-	54	-	-	-	
	Taeniasis		-	54	-	-	-	
	Goat: Mange		-	120	-	-	-	
	TB		-	15	-	-	-	
	Fascioliasis		-	30	-	-	-	
	Taeniasis		-	629	-	-	-	
Kogi	Sheep: PPR	Statewide	10,000	4,000	-	1,000	2,000	
	Helminthiasis		20,000	15,000	15,000		200	
	Ectoparasite		10,000	16,000	13,000	5,000	5	
	Goats: PPR		15,000	10,000	12,000	7,000	4,000	
	Helminthiasis		10,000	12,000	15,000	1,000	80	
	Ectoparasite		12,000	8,000	5,000	1,200	950	
Kwara	PPR	Ilorin East						Isolation
Benue	Helminthiasis	Makurdi	300	200	180	20	20	
	PPR	state-wide	300	300	200	80	20	
Nasarawa	Sheep: PPR	state-wide	4,611	6,084	5,281	803	-	
	Goat: PPR		3,148	5,218	4,984	234	-	
South West								
Ekiti	Sheep Scard	Ado Ekiti	25	15	15			Treatment
	Goats: Helminthiasis	Ekiti	100	25	25			
	Goats: PPR		30	20	15			
Ogun	Mastitis	state-wide						Treatment
	Mange		4,000	2,000		1,000	1,000	
Ondo	Sheep: PPR	state-wide	2,000	1,400	1,000	320	4	Vaccination
	Goats: PPR		4,000	2,500	2,000	100	10	
Osun	Sheep: PPR	Irepodun (*10)	-	2,000	800	-	580	
		Atakumosa. (*5)	-	1,900	700	-	420	
		Boripe. (*10)	-	2,100	500	-	620	
	Goats: PPR	Olaoluwa (*5)	-	1,500	600	-	510	
		Orolu (*7)	-	2,100	650	-	600	
		Olorunda (*8)	-	2,000	800	-	750	
Oyo	Helminthiasis	state-wide	-	215	-	-	-	
	Mange		-	72	378	-	-	
Lagos	Sheep: PPR	Ifako, Eti-Osa, Ibeju Lekki	-	80	400	-	-	Vaccination
	Goats: PPR		-	120	600	-	-	

Zone/ State	Disease/Pest	Location/ (*no of farms affected)	Total stock of animal	Number of animals affected	Number vaccinate d or treated	Number culled due to infection	Mortality	Intervention
South East								
Ebony i	Sheep: PPR	Ebonyi (*6)	-	500	-	-	-	
	FMD	Abakaliki (*6)	-	100	-	-	-	
	Pneumonia	Afikpo (*6)	-	50	-	-	-	
	Goats: PPR	Afikpo, Abakaliki	-	-	-	-	-	
	FMD	Abakaliki, Ebonyi	-	-	-	-	-	
	Pneumonia	Afikpo	-	-	-	-	-	
Abia	PPR	state-wide	700	1,200		1,000	500	
	Helminthiasis		1,586	73			20	
	Dermatosis		8,060	> 600			120	
South South								
Akwa- Ibom	Sheep & Goats: Mange	state-wide	-	-	-	-	2	Vaccination
	Sheep: PPR	Oron	430	427	427	3		
		Ibesikpo Asutan	1,530	1,525	1,523	3	2	
Goats: PPR	state-wide	30,000	29,700	29,700	200	10	Vaccination Supply of young does and bucks	
Edo	PPR	state-wide. (*25)	-	80,000	-	-	-	Drugs and vaccines
	Mange	state-wide (*25)	-	43,000	-	-	-	Ectoparasite contro
	Helminthiasis	state-wide (*25)	-	43,000	-	-	-	Biosecurity Dewormer

Table 12.2c: Livestock Pests and Diseases (Poultry)

Zone/State	Disease/Pest	Location/ (*no of farms affected)	Total stock of animal	Number of animals affected	Number vaccinated or treated	Number culled due to infection	Mortality	Intervention
North East								
Bauchi	NCD	Bauchi	7,000	7,000	6,100	700	200	
	Fowl Pox	Dass	1,920	1,920	180	100	20	
	Coccidiosis	Alkaleri	4,700	4,700	4,200	400	100	
Borno	Fowl Typhoid	P.P.U.	3,000	200	3,000	70	16	Vaccination
Taraba	NCD	state-wide	16,070	206,641	506,107	40,627	113,628	
	IBD			88,223	377,446	16,077	31,372	
	AI	Jalingo						
Gombe	NCD	state-wide	40,693	33,186	101,239	127	63	
	IBD		26,431	24,189	71,329	140	56	
	Fowl Typhoid		18,939	16,906	2,000	26	19	
Adama wa	NCD	Yola North & South	86,000	86,000	32,000		16,000	Government intervention
	Fowl Pox		11,500	11,500	2,000		128	
	Coccidiosis		16,580	16,580			170	
North West								
Jigawa	NCD	state-wide						
Kano	AI	Ungogo, Gwale, Nasarawa, D/Tofa, Kumbotso, Dala, Bebeji, Madobi (*23)	-	300,000	0	0	300,000	AI surveillance Depopulation Decontamination
	NCD	state-wide	-	500,000	500,000	-	-	Biosecurity
	IBD		-	300,000	300,000	-	-	
Sokoto	NCD	state-wide	-	-	-	-	-	
North Central								
Benue	NCD	state-wide	-	-	-	-	-	
	IBD		-	-	-	-	-	
	Fowl Typhoid		-	-	-	-	-	
FCT	AI	Gwagwalada		1,792		1,500	292	Decontamination
Kogi	NCD	state-wide	3,000,000	2,000,000	2,000,000	50,000	50,000	Vaccination
	Fowl Pox		1,000,000	800,000	900,000	500	10,000	
	Coccidiosis		2,000,000	1,000,000	1,500,000	100	50,000	

Table 12.2c Cont'd: Livestock Pests and Diseases (Poultry)

Zone/ State	Disease/Pest	Location/ (*no of farms affected)	Total stock of animal	Number of animals affected	Number vaccinated or treated	Number culled due to infection	Mortality	Intervention
Kwara	NCD	Ilorin East, Asa, Ilorin West	-	-	-	-	-	Isolation Biosecurity Treatment
	IBD		-	-	-	-		
	Fowl Pox		-	-	-	-		
Plateau	Salmonellosis	state-wide	-	-	-	-	-	
	Colibacillosis		-	-	-	-		
	NCD		-	-	-	-		
Niger	IBD	Bosso	-	-	-	-	150	Treatment
Nasarawa	NCD	state-wide (*21)	-	6,891	4,016	852	1,785	
	IBD	state-wide (*28)	-	1,606	9,512	72	136	
	Fowl Pox	8 LGAs (*10)	-	1,911	1,215	202	305	
South West								
Ekiti	Coccidiosis	Ado Ekiti	5,000	200	5,000	200	25	Treatment
	NCD	Ekiti	3,500	250	3,500	250	10	
Lagos	AI	Ikorodu, Ojoo, Badagry		120,000		120,000	90,000	Depopulation
Ogun	IBD	state-wide (*12)	-	5,360	5,360	-	715	Vaccination
	NCD	state-wide(*15)	-	15,738	15,738	-	840	
	NCD	state-wide	-	50,000		-	35,000	
	Fowl pox	state-wide (*17)	-	1,370	1,370	-	27	
	AI	state-wide	-	20,000	-	-	17,800	Total destruction
	Coccidiosis	state-wide	-	45,000	-	-		Treatment
Ondo	NCD	All LGAs	40,000	10,280	10,000	200	20	Vaccination
Osun	NCD	Egbedore (*4)	-	5,500	5,500	-	200	Vaccination
		Odo-otin (*8)	-	12,000	9,000	-	1,500	
		Ede North (*3)	-	15,000	10,000	-	4,500	
	Marek's Disease	-	-	-	-	-	-	Treatment
	CRD	-	-	-	-	-	-	
Oyo	Coccidiosis	state-wide		1,350		-	-	Treatment
	Salmonellosis			1,100	2,450	-	-	

Table 12.2c Cont'd: Livestock Pests and Diseases (Poultry)

Zone/ State	Disease or Pest	Location/ (*no of farms affected)	Total stock of animal	Number of animals affected	Number vaccinate d or treated	Number culled due to infection	Mortality	Intervention
South East								
Abia	AI	state-wide	8,000	2,000		4,000	400	
	NCD		Many	12m			2.4m	
	Pullorum Disease		Many	12m			2.4m	
Ebony i	Gumboro	Abakaliki Afikpo (*8)		10,000	5,000		2,500	Treatment
	NCD	(*8)		20,000	15,000		66,700	
	CRD	(*8)		5,000	3,000		500	
South South								
Akwa Ibom	NCD	state-wide			30			Vaccination
	Fowl Pox							
	Coccidiosis							
Delta	Coccidiosis	Udomi Abova					5%	Treatment
	AI	Oshimili South					20%	
		Oghenejename farms		11,000			11,000	
		Ekrerhavwe- Agbarho						
Edo	AI	state-wide (*6)		25,000		15,000	9,000	Surveillance
	NCD	state-wide (*60)		500,000	1.6m			Testing kits
	Coccidiosis	state-wide (*60)		500,000	1.6m			Compensation
Bayel sa	Necrotic Enteritis (broilers)	-	-	-	-	-	-	
	Fowl Pox (layers)	-	-	-	-	-	-	

Table 12.2d: Livestock Pests and Diseases (Swine)

Zone/ State	Disease/Pest	Location/ (*no of farms affected)	Total stock of animal	Number of animals affected	Number vaccinated or treated	No culled due to infection	Mortality	Intervention
North East								
FCT	ASF	Gwagwalada		350			100	Decontamination
Gombe	ASF	state-wide	2,000	1,879	1,729	45	30	
	Diamond Skin Disease		-	-	-	-	-	
	Helminthiasis		-	-	-	-	-	
Bauchi	ASF	T/Balewa	2,400	2,400	200	300	100	
	Enteritis	Toro Bogoro	1,800	1,800	1,500	200	100	
	Helminthiasis		1,650	1,650	1,550	60	40	
Adama wa	ASF	Madagah	2,586	2,586	-	-	1,238	
		Michika	5,624	5,624	-	-	2,461	
	Erysipelothrix	Mubi North	2,100	2,100	-	-	127	
North Central								
Benue	ASF	state-wide	Numerous				100	
	Helminthiasis		50,000	30,000	-	-	-	
Plateau	ASF				-	-	-	
Taraba	ASF	state-wide (*16)		5,081		146	2,617	
Nasara wa	ASF	2 LGAs (*3)		16	9	4	3	
South West								
Ekiti	Helminthiasis	state-wide	-	-	-	-	-	
	Piglet Anaemia		-	-	-	-	-	
Ondo	Helminthiasis	state-wide	1000	500	500		0	Deworming exercise
Ogun	Helminthiasis	state-wide						Disinfection Total destruction
	ASF		17,525	17,525	-	-	17,525	
	ASF		Ifo, Wasinmi, Ijebu, Yewa		15,000	-	-	
Osun	ASF	Irewole (*1)		96		16	80	Disinfection
		Ede South (*1)		89	-	24	65	Total destruction
Lagos	ASF	Ikorodu, Ifako Ijaye		100,000	-	100,000	80,000	Depopulation Decontamination
Oyo	ASF	-	-	-	-	-	-	-
South East								

Anambra	ASF	-	-	-	-	-	-	
	Erysipelothrix	-	-	-	-	-	-	
Abia	ASF	state-wide	Many	10,000		5,000	3,300	
Zone/ State	Disease or Pest	Location/ (*no of farms affected)	Total stock of animal	Number of animals affected	Number vaccinated or treated	Number culled due to infection	Mortality	Intervention
Enugu	ASF	state-wide						
Ebonyi	ASF	Izzi Abakaliki. (*3)		500			400	
	Mange	Ebonyi (*5)		60				
South South								
Akwa Ibom	ASF	Ikot Abasi	4,950	4,900	4,900	50		Vaccination
	Helminthiasis	Ibiono Ibom	15,000	10,650	10,650	4,274	76	
		Ukanafun	14,300	14,270	14,270	20	10	
Bayelsa	Exudative Epidermitis	Yenagoa	-	-	-	-	-	
Cross River	ASF	state-wide	-	-	-	-	-	
	Helminthiasis		-	-	-	-	-	
Edo	ASF	state-wide (*25)	-	20,000		3,500	15,000	Depopulation
Delta	ASF	Statewide	-	-	-	-	-	

Table 12.2e shows the incidences of pest and diseases in other animals including camels, donkeys and horses in Bauchi, Adamawa, Gombe (North East), Kano (North West) and Taraba (North Central) States. Three (3) horses died from anthrax in Adamawa State. Colic was one of the major clinical symptoms of gastro-intestinal problems which affected 970 horses. The affected animals were treated symptomatically, consequently, 971 recovered while 9 of them died. High parasite infestation occurred in donkeys, camels and horses were affected by parasite in Bauchi which resulted in death of 100 donkeys, 15 camels and 8 horses. High severity of African Horse Sickness (AHS) was reported only in Gombe State. Animals were vaccinated to control the AHS incidences.

Table 12.2e: Livestock Pests and Diseases (Donkeys, Camels, Horses)

Zone/State	Disease/Pest	Location	Total stock of animal	Number of animals affected	Number vaccinated or treated	Number culled due to infection	Mortality	Intervention
North East								
Bauchi	Donkey: Parasite	Zaki	2,300	2,300	2,200	-	100	Treatment
	Septicaemia	Gamawa	5,600	5,600	5,560	25	15	
	Helminthiasis	Itas	3,780	3,780	3,769	6	5	
	Camels: Dermatitis	Zaki	411	411	400	3	8	
	Parasite	Gamawa	5,600	5,600	5,660	25	15	
	Septicaemia	Itas	3,780	3,780	3,769	6	5	
	Horses: Parasite	Katagum	800	800	792	-	8	
	Septicaemia	Shira	1,003	1,003	1,000	-	3	
	Colic	Misau	970	970	961	-	9	
Adama wa	Horses: Anthrax	Yola South	5	5	-	-	3	-
Gombe	Horses: AHS	state-wide	200	110	250	-	-	Vaccination
North West								
Kano	Horses: Respiratory Problems	Metro LGAs	15	15	15	-	-	Treatment
North Central								
Taraba	Trypanosomiasis		18	434	-	-	-	Treatment

12.3. Livestock Related Facilities in Nigeria

Information on livestock related facilities are shown in Table 12.3 to 12.9. The livestock industry in Nigeria is endowed with a lot of facilities. More facilities are however needed to meet the ever-increasing demands for animal sources of protein by the ever increasing population.

Table 12.3: Livestock related facilities in Nigeria (Tanneries)

Agro-ecological zone/State	Total Number	Locations	Status			
			Functional		Non-functional	
			2020	2021	2020	2021
North East						
Bauchi	2	Katagum, Bauchi				
Borno	1	Gombole				
North West						
Kano	12	state-wide	3	9	3	9
Sokoto	13		11	11	2	2
North Central						
Plateau	25	17 LGAs	4	4	21	21

Table 12.4: Livestock related facilities in Nigeria (Hatcheries)

Agro-ecological zone/State	Total Number	Locations	Status				Remarks
			Functional		Non-functional		
			2020	2021	2020	2021	
North East							
Adamawa	1	Mayo Belwa	1	1			
North West							
Kaduna	1	Chikun	1	1			Private
Kano	2	D/Tofa, Bebeji	0	0	2	2	Non-functional
Sokoto	1	Sokoto South			1	1	
North Central							
Kogi	1	Adavi	1	1			
Plateau	5	Jos South, Barkin Ladi	3	3	2	2	
South West							
Osun	4	Ede, Osogbo, Iwo	4	4			
South East							
Ebonyi	1				1	1	
Enugu	2		2	2			
South South							
Rivers	2		1	1	1	1	Private

Table 12.5: Livestock related facilities in Nigeria (Slaughter slab)

Agro-ecological zone/State	Total number	Locations	Status				Remarks
			Functional		Non-functional		
			2020	2021	2020	2021	
North East							
Bauchi	225	20 LGAs	100	80	125	145	
Borno	1	Gombole					
North West							
Kano	217	state-wide	209	209	8	8	
Sokoto	76		76	76			Need upgrade
North Central							
Taraba	17	17 LGAs	10	8	7	9	
Kogi	20	state-wide					
Plateau	35	17LGAs	20	20	15	15	Need renovation
South East							
Ebonyi	10	Abakaliki Onueke	10	10			
South West							
Osun	248	state-wide	248	248			
South South							
Edo	79	state-wide	67	79			
Rivers	81	state-wide	46	50	29	31	Private

Table 12.6: Livestock related facilities in Nigeria (Livestock market)

Agro-ecological zone/State	Total number	Locations	Status				Remarks
			Functional		Non-functional		
			2020	2021	2020	2021	
North East							
Bauchi	60	All LGAs		60			
North West							
Kaduna	9		9	9			
Kano	44	state-wide	44	44			Need extension due to high number of livestock traders
Sokoto	25		25	25			
North Central							
Kogi	15	15	15	15			
Plateau	9	7 LGAs	9	9			
Taraba	16	16 LGAs	16	16			
South West							
Lagos	2	Oko-Oba, Alaba Rago	2	2			
Osun	30	state-wide	30	30			
South East							
Ebonyi	20	state-wide	20	20			All functional
Enugu	Numerous	17 LGAs					
South South							
Edo	29	state-wide	25	29			
Rivers	8	PHALGA Obi Akpor	5	5	3	3	More markets needed

Table 12.7: Livestock related facilities in Nigeria (Feed mills)

Zone	Total number	Locations	Status				Remarks
			Functional		Non-functional		
			2020	2021	2020	2021	
North East							
Bauchi	1	Bauchi					
North West							
Kaduna	2		2	2			
Kano	4	Nasarawa, Gezawa	4	4			All are functioning
Sokoto	3		2	1	1	2	
North Central							
Kogi	2	Adavi Lokoja					
Plateau	65	Jos North Jos South	60	60	5	5	Need reactivation
Taraba	1	Zing	1	1			Fully operational, some maintenance needed
South West							
Osun	210	Statewide	210	210			
Lagos	10	Agege Epe	10	10			
South East							
Ebonyi	2	Abakaliki					
Enugu	Numerous	5 LGAs					
South South							
Edo		Oredo LG	1	2			
Rivers	5	Benin	4	4	1	1	

Table 12.8: Livestock related facilities in Nigeria (Veterinary clinics)

Agro-ecological zone	Total Number	Locations	Status				Remarks
			Functional		Non-functional		
			2020	2021	2020	2021	
North East							
Bauchi	16	16 LGAs	16	16			
North West							
Kaduna	25		25	25			
Kano	27	state-wide	25	25	2	2	
Sokoto	33		27	27	6	6	
North Central							
Taraba	16	16 LGAs	6	3	10	13	
Kogi	25	state-wide	25	25			
South West							
Lagos	7	Across the State					
Osun	7		7	7			
South East							
Anambra	21	state-wide		21	21		
Ebonyi	4	Abakaliki Onueke Afikpo					Functional but lack some equipment
Enugu	18	17 LGAs	3	2	3	2	
South South							
Edo	43	state-wide		36	43		State-owned referral veterinary clinic required
Rivers	82		82	82			

Table 12.9 a: Livestock related facilities in Nigeria (Grazing reserve)

Agro-ecological zone	Total number	Locations	Status				Remarks
			Functional		Non-functional		
			2020	2021	2020	2021	
North East							
Bauchi	80	7 LGAs					
North West							
Jigawa	454		454				
Kaduna	16		16	16			
Sokoto	19		19	19			Gazetted
North Central							
Kogi	2	Kabba Omala					
Plateau	2	Wase					Not in use
Taraba	9	Zing, Karim Lamido Donga, Bali Ardo-Kola Wukari	Functional and gazette				Many of the grazing reserves are heavily encroached.

Table 12.9b: Livestock related facilities in Nigeria (Ranches)

Agro-ecological zone	Total number	Locations	Status				Remarks
			Functional		Non-functional		
			2020	2021	2020	2021	
North East							
Adamawa	4	Demsa, Fufore Michika	3	3	1	1	Bazza cattle ranch is government-owned and was functional
Bauchi	2				.		
North West							
Kaduna	2				2	2	
North Central							
Plateau	3		2	2	1	1	
Taraba							
South West							
Osun	3	Iwo, Ife, Osogbo					
South East							
Abia	2	Bende, Umunneochi					Established for dairy cow
Ebonyi	1	Onicha			1	1	
South South							
Edo	3				3	3	The state is encouraging individuals to invest in ranching.

12.4 Major Livestock Markets in Nigeria

The major livestock markets across all the zones are showed in Table 12.10 . The specific markets for cattle, sheep, goats, poultry and swine were equally listed. The volume of livestock traded in some of the different markets in the year 2020 and 2021 were reported in Table 12.11a (North East and North West), 12.11b (North Central), 12.11c (South West and South East) and 12.11d (South South).

Table 12.10: List of major livestock markets in Nigeria

Agro-ecological Zone/State	Cattle	Sheep	Goats	Poultry	Swine
North East					
Adamawa	Mubi international market	Mubi international market	Mubi international market		Numan
	Ganye int'l market	Ganye int'l market	Ganye int'l market		
	Song cattle market	Song cattle market	Song cattle market		
	Norore cattle market	Chigari cattle market	Norore cattle market		
	Chigari cattle market		Chigari cattle market		
Borno	Gamboru-Ngala	Garere-Damasak	Munguno		
	Banki	Munguno	Gubio		
	Danboa	Maiduguri cattle market	Benisheikh		
	Gubio Benisheikh				
Bauchi	Mararaban Liman Katagum	Mararaban Liman Katagum	Mararaban Liman Katagum	Toro	Bogoro
	Azare cattle market	Nabordo L/market	Nabordo L/market	Durum market	T/Balewa
	Alkaleri cattle market	Gamawa L/market	Gamawa L/market	Kafin Madaki market	Boi
	Soro cattle market	Gaide L/market	Azare L/market	Miya market	Yalwa – Bauchi
	Gamawa cattle market	Darazo L/market	Daben Fulani market	Soro poultry market	Gobiya
Gombe	Gombe main market	Gombe main market	Gombe main market	Gombe main market	Kumo market
	Kurjele market	Kwadon	Kwadon		
	Bajoga/Kuruku	Bajoga/Kuruku	Bajoga/Kuruku	Dogon ruwa market	Billiri market
	Lalaipido/Kashere Maikajjo	Lalaipido/Kashere Maikajjo	Lalaipido/Kashere Maikajjo	Kumo market	Kaltungo market
	Kuri/Kumo	Kuri/Kumo	Kuri/Kumo		

Agro-ecological Zone/State	Cattle	Sheep	Goats	Poultry	Swine
North East					
Yobe	Damaturu cattle market	Geidam sheep market	Potiskum	Potiskum	
	Garin Alkali cattle market	Garini sheep market	Babangida	Bade	
	Damaturu market	Potiskum market	Garin Alkali	Nguru	
	Nguru cattle market	Pounri-yali market	Nguru	Geidam	
	Geidam cattle market	Ngurur market	Geidam	Damaturu	
North West					
Zamfara	Gusau	Gusau	Gusau	Gusau	-
Jigawa	Shuwarin market Yarhurya market	Balangu market	Gujungu market	Dutse L/Market	-
	Gujungu market Furji diginsa market	Garun gabas market	Garki market	Hadejia market	-
	Maigatari market Babura market Beguwa market	Malam madori market	Gumel market	Birnin Kudu market	-
	Sara market Tududu market	Kafi Hausa market	Hadejia market	Kumpsa market	-
	Garon market Kumpsa market	Birniwa market	Sara market	Garun gabas market	-
Kaduna	Kasuwan Magani	Anchau	-	Rail Station	Kafancha
	Zangon T/Wada	Makarfi	-	Wharf Road	-
	Lambar Zango	Jere ATC market	-	-	-
	Gadar Gayan	Tudun Tsaibu	-	-	-
	Mariri Market		-	-	-
Katsina	Charanchi	Charanchi	Charanchi	Charanchi	-
	Mai adu'a	Mai adu'a	Mai adu'a	Kankia	-
	Jibiya	Jibiya	Jibiya	Katsina	-
	Dankama	Mashi	Ajiwa	Mashi	-
	Sheme	Kagadama	Dutsinma	Dutsinma	-
Kano	Wudil, Dambatta	Wudil	Wudil	Wudil	-
	K/Dangora	Danbatta	Danbatta	L/Zango	-
	Getso , Falgore	L/Zango	L/Zango	Getso	-
North Central					
Benue	Makurdi Int'l Cattle market	Makurdi Int'l Cattle market	Makurdi Int'l Cattle market	Otukpo main market	Tsar market
	Katsina-Ala cattle market	New garage market, Otukpo	New garage Market, Otukpo	Makurdi modern market	-
	Otukpo livestock market	Gboko main market	Gboko main market	Gboko main market	-
	-	Katsina-Ala cattle market	Katsina-Ala cattle market	Wurukum market, Wadata market	-
FCT	Dei Dei market	Dei Dei market	Dei Dei market	Dei Dei mket	-
	Dakwa market	Dakwa market	-	-	-

	Bwari market	Bwari market	-	-	-
	Mpape market	Mpape market	-	-	-
	Kubwa market	Kubwa market	-	-	-

Table 12.10 Cont'd: List of major livestock markets in Nigeria

Zone/State	Cattle	Sheep	Goats	Poultry	Swine
North Central					
Kogi	Lokoja	Lokoja	Lokoja	Lokoja	Obajana
	Ajaokuta	Okene	Ofu (Itobe)	Okene	Anyigba (Dekina)
	Adavi	Ankpa	Yagba West (Egbe)	Kabba	Kabba (Bunu)
	Yagba West (Egbe)	Anyigba	Okene	Anyigba	-
	Omala (Bagana)	Kabba	Anyigba (Dekina)	Ankpa	-
	Zango-Felele	Okumi Lokoja	Afor Gamgam, Ankpa	Bagana Omala	-
	G/Gwari Ajaokuta	-	-	-	-
Kwara	Baruba	-	-	-	-
	Kaiama	Kaiama	Kaiama	-	-
	Share	Share	Share	-	-
	Ajase Ipo	Ajase Ipo	Ajase Ipo	-	-
	Patigi	Patigi	Patigi	-	-
Nasarawa	Lafia cattle market	Across the state	Across the state	Across state	Assakio, Lafia
	Wamba market	-	-	-	-
	Karu cattle market	-	-	-	-
	Keffi cattle market	-	-	-	-
Niger	Kowa/Jebba	Lambata Market	-	Minna	Gwada
	Kuta Market	Wuya Market	-	Bida	Adamu
	Tungan Mallam	Wawa market	-	Sulja	Gaba
	Befi Market	Kawo Market	-	Kontagora	-
	Izom Market	Zuba	-	Mokwa	-
Plateau	Kanke (Amper)	Kanke (Amper)	Kanke (Amper)		Kanke (Amper)
	Kurgwi	Kurgwi	Kurgwi	Kurgwi	Kurgwi
	Jengre	Jengre	Jengre	Jengre	Qua'an
	Miango	Miango	Miango	Miango	-
	Dengi	Dengi	Dengi	Dengi	-
	Bokkos	Yasham	Mangu	Yan Kaji	-
	Yan Shanu	Mangu	-	-	-
Taraba	Iware (Ardo Kola)	Iware	Iware	-	-
	Garba Chede (Bali)	Mararrabar kunmi	Nguroje	-	-
	Nguroje (Sardauna)	Nguroje	Tella	-	-
	Bantage (Wukari)	Banatge	-	-	-
	Tella (Gassol)	Tella	-	-	-
South East					
Anambra	Amansea cattle market	Oye Nimo	Old timber Awka	Eke Awka	-
	Oye Uga cattle market	Nkwo Omor	Tampo Umunya	Afor Nnobi	-
	Ogbunike cattle mkt	Nkwo Igbo-Ukwu	Olympic Park	Ose Iweka Mkt	-
	Awka Etit	Olympic Park	Oye Nimo	Afor Npor	-
	Tampo Umunya	Oye Uga	Kara market Okpoko	Kara market Okpoko	-

Table 12.10 Cont'd: List of major livestock markets in Nigeria

Agro-ecological Zone/State	Cattle	Sheep	Goats	Poultry	Swine
South East					
Anambra	Amansea cattle market	Oye Nimo	Old timber Awka	Eke Awka	-
	Oye Uga Cattle market	Nkwo Omor	Tampo Umunya	Afor Nnobi	-
	Ogbunike Cattle market	Nkwo Igbo-Ukwu	Olympic Park	Ose Iweka Markets	-
	Awka Etiti	Olympic Park	Oye Nimo	Afor Npor	-
	Tampo Umunya	Oye Uga	Kara Market Okpoko	Kara Market Okpoko	-
Ebonyi	Gariki Abakaliki	Eke Imoha	Eke ilmoha	Life bird market Abakaliki	Occasionally sold in markets or at owners farm
	Eke limoha, Izza South	Eke Ifkpo	Nwankwo Ugo Ukawu	Eke Imoha	-
	Hausa Quarters	Igbojo	Garki Hausa Quarters	Eke Afikpo	-
	Effium market, Ohaukwu	Orice Egbe	Orie Egbe	Eke Okposi	-
		Nkwuegu Izzi market	Eke Afikpo	Orie Egbe	-
Enugu	New Artisan market	New Artisan market	New Ertisan market	Old Artisan market	Obeagwu market
	Gariki market Orië-Orba market	Gariki market	Gariki market	Gariki market Odegbo Nsukka market	Ogbete New market
	Ugwu-Orba market Enugu Ezike market	Obollo-Afor market	Obollo-Afor market	Ariaria market Abakpa Nike market	Oria-Orba
Imo	Obinze market Okigwe market Mbaise market	Owerri North Obinze Market Egbu market	Obinze Market (Owerri West)	Relief Market Owerri World bank Egbeda	Eke Atta Market (Ikeduru) Oriagu market Oke Okigwe market
Abia	Iokpanta market Ogbor hill market Ubakala market	Iokpanta market Akwete market	Iokpanta market Akwete market Ogwe market	Eziukwu market Ariaria market Ubani market	Ubakala market Aba road market Aba waterside pork market

Table 12.10 Cont'd: List of major livestock markets in Nigeria

Agro-ecological Zone/State	Cattle	Sheep	Goats	Poultry	Swine
South West					
Ekiti	State cattle market	Atikankan market	Atikankan market	Atikankan market	-
	Shasha market	Shasha market	Shasha market		-
	Adekunle market	Adekunle market	Adekunle market		-
		Adere market	Adere market		-
Lagos	Oko-Oba, Agege	Oko-Oba, Agege	Oko-Oba, Agege	Aiyedoto Ojo	Oke-Aro
	Alaba Rago Sabo Market	Sabo market Bariga	Sabo Market Odo-eran	Erikorodo, Ikorodu	Gberigbe
	Badagry market	Alaba Rago Ikorodu	Alaba Rago Bariga	Metropolis Market	-
		Metropolis market	Metropolis Market	Araga	-
Ogun	Isheri Kara Olodo Allah De Round about cattle market	Isheri Kara	Isheri Kara	Olabisi Onabanjo New Market	Ijebu-Igbo
	Itoku	Kuto market	Kuto market	Kuto market	Ipokia
	Imowo market	Imowo market	Imowo market	Oke-Aje market	-
	Lafenwa cattle market	Lafenwa cattle market	Itoku market	Obada market	-
	Ogere market	Ogere market	Ogere Toll Gate	-	-
Ondo	Imo arigidi market	Oja Oba (Oja Ale)	Oja Oba (Oja Ale)	Seja (Irele)	Chiroma (Irele)
	Kara market	Oja Oba (Owo)	Oja Oba (Odo-Ode)	Oja Oba (Akoko NE)	Yaba Olukuta (Ore)
	Ado road	Public field (Odo-Ode)	Oke-Igbede (Isua)	Oja-Oba (Akure South)	Pig market (Agadagba)
	-	Isua market	Mojere (Better life)	Odolua (Owena)	Ajagba (Okitipupa)
	-	Mojere (Oke Igbede)	Public field (Pata)	Ajagba (Okitipupa)	Sabo Irele (Okitipupa)
Osun	Odo-Ori market Iwo cattle market Sekona market	Oja-Oba Market, Osogbo	Oja-Oba Market, Osogbo	Oluode, Osogbo	Atakumosa, Ilesa
	Orisunmibare market Osogbo	Powerline, Osogbo	Powerline, Osogbo	Atakumosa, Ilesa	Oluode market, Osogbo
	Sabo, Ile-Ife Ifesowapo market	Oja Timi, Ede	Oja Timi, Ede	Sabo, Ile-Ife	Okesa, Ilesa
	Aro-Dapson, Ile-Ife Agbungbu market	Araromi Ilesa	Araromi Ilesa	Itagogun, Ile-Ife	Oja Obi Ila
	Egbejoda, Ara Junction, Taju Adisa market, Ara Junction	Sabo, Ile-Ife	Sabo, Ile-Ife	Adeke, Iwo	Monday market, Ikirum

Table 12.10 Cont'd: List of major livestock markets in Nigeria

Agro-ecological Zone/State	Cattle	Sheep	Goats	Poultry	Swine
South West					
Oyo	Akinyele	Akinyele	Saki	Oyo (Ilora)	Akinyele
	Iseyin	Oranyan market Sabo market (Oyo)	Kishi	Awe, Akesan	Ogbomoso
	Ago Are market	Bodija	Akinyele market Iseyin market	Mokola, Molete	Oyo
	Oyo	Oyo	Oranyan market Sabo market (Oyo)	Bodija, Oluyole	Lalupon market
	Igbeti	Iseyin	Bodija	Sasa	Igboora
South South					
Bayelsa	Swali	Swali	Swali	Swali	-
	Bayelsa Palm	Kaiama	Bayelsa Palm	Lapansia	-
	Kaiama	Tombia	Kaiama	Kaiama	-
	Tombia	Sagbama	Tombia	Tombia	-
	Sagbanma		Sagbanma	Sagbanma	-
Delta	Oko cattle market	Asaba, Oko road market	Asaba, Oko road market	Ogbe-Ogogonigo market, Asaba	Otu-Jeremi
	Agbor cattle market	Oleh ruminant market	Oleh ruminant market	Agbor	Ozoro
	Okpanam cattle market	Ughelli market	Ughelli market	Warri	Sapele
	Warri cattle market	Warri sheep and goat market	Warri sheep and goat market	Sapele	Warri
Edo	Eyean	Aduwawa	Aduwawa	Oliha	-
	Aduwawa	Temboga	Temboga	Aduwawa	-
	Okada Junction	Eyean	Eyean	Ekiosa	-
	Uromi	Irrua	Irrua	Irrua	-
	Irrua	Auchi	Auchi	Uromi	-
Rivers	Iriebe cattle market	Iriebe cattle market	Ogonis market	Creek road market	Omoku
	Elenwo cattle market	Elenwo cattle market	Okwru market	Mile 3 LBN	-
	Okwru market	Mile 3	Mile 3	Mile 1 LBM	-

Table 12.11a: Volume of trades of livestock in major livestock markets in Nigeria (North East and North West)

Agro-ecological Zone	Livestock Market	Livestock type									
		Cattle		Sheep		Goats		Poultry		Swine	
North East		2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Adamawa	Mubi international mkt	18,000		16,000		14,000					
	Ganye int'l market	10,000		14,000		12,000					
	Song cattle market	10,000		3,000		9,000					
	Norore cattle market	14,000				10,000					
	Chigari cattle market	8,000		5,000		6,000					
	Numan Market									8,000	
Borno	Gamboru Ngala	3,000	3,500								
	Banki	3,500	4,000	2,000	3,200						
	Danboa	1,000	700								
	Gubio	2,000	2,600			2,000	2,500				
	Benisheikh	1,700	2,000			2,000	2,700				
	Garere Damasak			1,000	1,700						
	Monguno			3,000	3,600	1,700	2,000				
	Maiduguri market			1,200	1,600						
	Mulai			300	450						
Bauchi	Alkaleri cattle market	10,300	11,500								
	Soro cattle market	7,500	9,300					8,360	9,220		
	Azare cattle market	13,500	15,300			6,500	10,300				
	Gamawa cattle market	11,800	15,300	13,700	14,500	9,200	14,300				
	M/Liman Katagun mkt	43,500	46,500	18,000	23,500						
	Nabardo L/market			9,600	15,500						
	Darazo L/market			10,500	4,000						
	Daben Fulani /market					5,900	9,500				
	Toro cattle market							7,000	100,000		
	Durum poultry market										

Table 12.11a Cont'd: Volume of trades of livestock in major livestock markets in Nigeria (North East)

Agro-ecological Zone/State	Livestock Market	Livestock type									
		Cattle		Sheep		Goats		Poultry		Swine	
North East		2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Bauchi	Kafin Madaki market							5,300	8,500		
	Boi									60	110
	Bogoro									70	100
	Yalwa – Bauchi									20	80
Yobe	Damaturu cattle market	49,612									
	Garin Alkali market	41,716									
	Damaturu market	32,196						19,176			
	Nguru market	25,616		26,201		19,616		19,001			
	Geidam market	36,176		56,126		19,616		16,762			
	Garini sheep market			43,168							
	Potiskum market			38,001		53,127		21,176			
	Pounri-yali market			19,167							
	Babbangida					11,716					
	Garin Alkali					52,616					
Bade							16,616				
Gombe	Gombe main market	126,000	146,000					14,000	20,000		
	Lalapaido market	20,000	25,000	12,000	18,000	15,000	21,000				
	Kumo market	35,000	40,000	18,000	24,000	20,000	30,000	16,000	20,000	11,000	16,000
	Kashere market	18,000	20,000								
	Kurjelle market	20,000	23,000								
	Kwadon market			25,000	39,000	31,000	49,000				
	Dogon ruwa market							17,000	21,000		
	Billiri market									13,000	19,000
Kaltungo market									15,000	21,000	

Table 12.11a Cont'd: Volume of trades of livestock in major livestock markets in Nigeria (North West)

Agro-ecological Zone/State	Livestock Market	Livestock type									
		Cattle		Sheep		Goats		Poultry		Swine	
North West		2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Jigawa	Shuwarin market	3,500									
	Gujungu market	4,000				6,000					
	Maigatari market	7000									
	Sara market	1500				7,000					
	Garin gabas	1200		2,100				43,000			
	Balangu market			2,600							
	Birniwa market			3,400							
	Mallam Madori mkt			4,000							
	Kafin Hausa market			2,900							
	Garki market					1,400					
	Gumel market					2,000					
	Dutse L/market							40,000			
	Hadejija market					4,000		40,000			
	Birnin Kudu market							51,000			
Kumpsa market							64,000				
Sokoto	Illela market	150,000	150,000	800,000	800,000	1,300,000	1,300,000	4,500,000	4,200,000		
	Achida market	135,000	135,000	600,000	600,000	700,000	600,000	2,800,000	2,700,000		
	Ruwa Wuri market	48,000	78,000								
	Sokoto Kara market	250,000	250,000								
	Bodinga Kara market	78,000	78,000	500,000	500,000	600,000	600,000				
	Sokoto market							1,000,000	1,300,000		
Kano	Wudil market	800,000	800,000	700,000	700,000	500,000	500,000	500,000	500,000		
	K/Dangora market	600,000	600,000								
	Getso market	200,000	200,000					300,000	300,000		
	Danbatta market	150,000	150,000	600,000	600,000	300,000	300,000				
	Falgore market	150,000	150,000								
	L/Zango market			400,000	400,000	350,000	350,000	350,000	350,000		

Table 12.11b: Volume of trades of livestock in major livestock markets in Nigeria (North Central)

Zone	Livestock Market	Livestock type								
		Cattle		Sheep		Goats		Poultry		Swine
North Central										
FCT	Dei Dei market	6,770		63,981		45,074		57,678		
	Dakwa market	50		133						
	Bwari market	215		92						
	Mpape market	355		120						
	Kubwa market	202		101						
	Gwagwalada							6,000		600
	Kuje market							6,000		
	Abaji market						7,100		500	
Kwara	Ilesha Baruba	40,000								
	Kaiama	10,500		3,000		900				
	Share	18,000		4,500		1,200				
	Ajase Ipo	21,000		4,000		1,500				
	Patigi	7,500		1,500		600				
Taraba	Iware	690,430	389,116			579,420	304,371	209,874	197,701	
	Garba Chede	340,110	197,689	930,431	349,199	418,875	276,531			
	Nguroje	290,140	101,861							
	Jatau	131,871	69,145	110,768	60,184					
	Tella	180,579	121,646							
	Lau					146,984	70,961			
	Jalingo							750,879	461,293	
	Wukari							404,601	280,101	140,637
	Takum									310,741
	Zing									190,493
Plateau	Bukuru	22,800	15,200							
	Yan Shanu	1,200	850							
	Jengre	1,320	850	800	600	1,200	800			
	Bokkos	6,000	4,000							
	Kanke (Amper)	2,400	1,600			4,000	3,200	15,000	10,000	
	Yasham			1,200	800					
	Mangu			1,200	800	4,000	3200			
	Yan Kaji							35,000	20,000	

Table 12.11b Cont'd: Volume of trades of livestock in major livestock markets in Nigeria (North Central)

Agro-ecological Zone	Livestock Market	Livestock type									
		Cattle		Sheep		Goats		Poultry		Swine	
North Central											
Nasarawa	Lafia cattle mkt	178,518									
	Keffi cattle mkt	54,680									
	Wamba cattle mkt	10,400									
	Karu cattle market	104,300									
	Markets across 13 LGAs			656,388							
	Assakio market									2,704	
Kogi	Zango Felele	1,500	2,550								
	Adavi	1,500	1,500								
	Bagana market	3,000	3,500					10,000	10,000		
	Gidan Gwari Ajaokuta	2,000	2,000								
	Okene market			500	600	500	500	15,000	15,500		
	Anyigba market			2,000	2,000	2,000	2,000			1,000	1,000
	Okumi Lokoja			300	300						
	Afor Gamgam					1,000	1,000				
	Lokoja market							20,000	20,000		
	Obajana market									3,000	3,000

Table 12.11c: Volume of trades of livestock in major livestock markets in Nigeria (South West and South East)

Zone	Livestock Market	Livestock type									
		Cattle		Sheep		Goats		Poultry		Swine	
South West											
Lagos	Oko-Oba, Agege	190,000	153,194	1,000,000	1,000,000	800,000	27,932				
	Sabo Market	48,000	10,942	100,000	16,504	800,000	30,900				
	Badagry Market	72,000	10,852								
	Alaba-Rago	120,000	21,885	100,000	16,139	125,000	23,058				
	Metropolis market			100,000	16,000	800,000		6,000,000			
	Aiyedoto Ojo							200,000	150,000		
	Erikorodo, Ikorodu			30,000	2,305			100,000	50,000		
	Oke-Aro									1,000,000	
	Gberigbe									1,000,000	
	Bariga			25,000	1,185	30,000	19,400				
	Odo-eran					40,000	19,951				
Araga							100,000	80,000			
Ogun	Isheri Kaara	106,161	110,383	3,008	15,946	6,392	10,724				
	Olodo	18,000	32,362								
	Allah De R market	16,000	28,000								
	Itoku	67,626	22,390			653	1,205				
	Imowo market	2,426	4,869	1,815	3,790	2,313	4,330				
	Lafenwa Market	33,925	16,523								
	Ogere Toll Gate	85,418	128,466	371,333	67,084	474,196	71,225				
	Kuto market				2,797			6,500	4,125		
	Onabanjo market							2,860	1,050		
Oke-Aje market							4,000	3,600			

Table 12.11c: Volume of trades of livestock in major livestock markets in Nigeria (South West and South East)

Agro-ecological Zone	Livestock Market	Livestock type										
		Cattle		Sheep		Goats		Poultry		Swine		
South West												
Ogun	Obada Poultry								5,000	3,500		
	Ijebu-Igbo										351	216
	Ipokia market										151	87
Osun	Iwo cattle market	2081	152	-	-	-	-	-	-	-	-	-
	Ifesowapo market	2,611	1,450	-	-	-	-	-	-	-	-	-
	Sekona market	3,640	2,780									
	Taju Adisa market	1,036	620									
	Agbungbu market	720	410									
	Powerline, Osogbo	-	-	4,200	2,800	5,600	3,112					
	Oja-Oba	-	-	900	550	3,550	2,506	25,500	18750			
	Araromi market	-	-	1000	653	4,500	3,420					
	Oluode market	-	-	300,000	240,000	140,000	136,000	29,400	22,600			
South East												
Ebonyi	Gariki Abakaliki	1,350,000	1,400,000									
	Eke Imoha	610,000	230,000	1,020,000	1,050,000	1,320,000	1,420,000	1,410,000	1,420,000			
	Gariki Hausa Qters	220,000	230,000			1,600,000	1,700,000					
	Effium market	325,000	350,000									
	Eke Afikpo			150,000	160,000	153,000	155,000	330,000	375,000			
	Igbojo			100,000	150,000							
	Orie Egbe			255,000	370,000			430,000	475,000			
	Nkwuegu Izzi			120,000	162,000							
	Nwankwo Ugo Ukawu					200,000	250,000					
	Onegbe					252,000	355,000					
	Life bird market, Abakaliki		-	-	-	-	-	-	4,670,000	5,600,000	-	-
	Eke Okposi								305,000	310,000	-	-

Table 12.11c Cont'd: Volume of trades of livestock in major livestock markets in Nigeria (South West and South East)

Zone	Livestock Market	Livestock type									
		Cattle		Sheep		Goats		Poultry		Swine	
South East											
Imo	Obinze Market	1,600	-	170	-	1,500	-	-	-	-	-
	Afor Ogbe (Ahia Azu Mbaise)	1,900	-	750	-	1,600	-	-	-	-	-
	Owerri Ebiri	1,150	-	-	-	175	-	-	-	-	-
	Awo Idemili	3,500	-	350	-	185	-	-	-	-	-
	Other centres in Imo	100	-	-	-	-	-	-	-	-	-
	Relief market	-	-	-	-	-	-	9,000	-	-	-
	Orie Amaraku	-	-	-	-	-	-	6,500	-	-	-
	Eke Atta market	-	-	-	-	-	-	4,500	-	3,500	-
	Oriagu market	-	-	-	-	-	-	-	-	4,000	-
	Eke Okigwe	-	-	-	-	-	-	-	-	3,000	-
Enugu	New Artisan market	60,000	-	50,000	-	50,000	-	-	-	-	-
	Orie-Orba	20,000	-	-	-	-	-	-	-	10,000	-
	Enugu Ezike market	15,000	-	-	-	-	-	-	-	-	-
	Gariki market	50,000	-	45,000	-	60,000	-	120,000	-	-	-
	Uqwu-Orba	70,000	-	-	-	-	-	-	-	-	-
	Obollo-Afor	-	-	40,000	-	55,000	-	-	-	-	-
	Old Artisan market	-	-	-	-	-	-	100,000	-	-	-
	Odegbo Nsukka	-	-	-	-	-	-	60,000	-	-	-
	Obeagwu market	-	-	-	-	-	-	-	-	10,000	-
	Ogbete market	-	-	-	-	-	-	-	-	5,000	-
Abia	Iokpanta market	5m*	6m*	-	-	-	-	-	-	-	-
	Ogbor hill market	3.5m*	2m*	-	-	-	-	-	-	-	-
	Ubakala market	1m*	300,000*	-	-	-	-	-	-	-	-
	Eziukwu market	-	-	-	-	-	-	7m*	10m*	-	-
	Ariaria market	-	-	-	-	-	-	4m*	5m*	-	-
	Ubani market	-	-	-	-	-	-	3m*	4m*	-	-

*States that reported in monetary value of the livestock traded

Table 12.11d: Volume of trades of livestock in major livestock markets in Nigeria (South South)

Zone/ State	Livestock markets	Livestock Type									
		Cattle		Sheep		Goats		Poultry		Swine	
South South											
Akwa Ibom	Uyo/Itam Itu market	2,474	2,397								
	Obo Annang, Essien Udim	1,579	1,218							13,230	13,109
	Afa Urua, Abak	1,299	967								
	Urua Udo Inyang, Eket	3,897	1,897	828	643						
	Urua Ete, Ikot Abasi	375	378								
	Urua Otoh, Ikot Ekpene			180	143						
	Urua Ekpo Nwa, Etinan			273	270						
	Uyo			1,100	987						
	Oron market			550	507						
	All major markets across the State					101,648	127,435	3,303,820	3,106,243		
	Itam bird market							617,400	593,420		
	Ukam market									7,600	5,430
	Ikot Ibritam market									9,946	8,670
Urua Ikpe, Ikono/Ini LGAs									4,463	5,435	
Esit Eket market									3,150	3,792	

Table 12.11d Cont'd: Volume of trades of livestock in major livestock markets in Nigeria (South South)

Agro-ecological zone/State	Livestock markets	Livestock Type									
		Cattle		Sheep		Goats		Poultry		Swine	
South South											
Edo	Eyean	600,000	650,000	50,000	54,000	200,000	215,000				
	Aduwawa	50,000	55,000	50,000	60,000	200,000	215,000	800,000	850,000		
	Okada Junction	70,000	53,000								
	Uromi	90,000	97,000					200,000	250,000		
	Irrua	70,000	72,000	15,000	20,000	15,000	25,000	70,000	80,000		
	Temboga			15,000	25,000	20,000	25,000				
	Auchi			75,000	80,000	75,000	80,000				
	Oliha market							500,000	550,000		
	Ekiosa							500,000	550,000		
Delta	Asaba, Oko road market			482		346					
	Oleh market			180		104					
	Ughelli market			120		117					
	Warri market			241		217					
	Ubiaruku			83		117					
Rivers	Iriebe cattle market	42,005	40,156								
	Elenwo cattle market	4,315	4,500	-	-	-	-	-	-	-	-
	Okwru market	3,567	2,125	-	-	-	-	-	-	-	-
Bayelsa	Swali	10,726	-	26,400	-	8,500	-	1,500,000	-	15,000	-
	Bayelsa Palm	2,050	-	-	-	3,800	-	-	-	-	-
	Kaiama	2,100	-	220	-	4,200	-	680,000	-	-	-
	Tombia	6,726	-	450	-	6,700	-	1,100,500	-	-	-
	Sagbama	2,500	-	145	-	2,900	-	750,000	-	-	-
	Lapansia	-	-	-	-	-	-	1,000,000	-	-	-

12.5: Livestock Production Inputs

Table 12.12 shows the livestock farm inputs procured and distributed to beneficiaries through government sources in some states in 2020 and 2021. The states were Bauchi (North West), Kano (North West), Lagos, Ogun, Osun (South West), Abia, Ebonyi, Imo (South East), Akwa Ibom, Edo (South South) and FCT (North Central). Livestock vaccines such as CBPP vaccines and PPR vaccines were procured and distributed by the government in Bauchi State. Ebonyi State also distributed anti-rabies vaccines to farmers and was the only state that got inputs from the federal government in that regards in 2021. Ogun, Osun and Imo states were the beneficiaries of poultry vaccines/drugs distributed by the federal government. Day-old-chicks (DOC) were provided and distributed in Kano, Ogun, Osun, Imo States and FCT. Imo State had their inputs from other sources like NGOs or private organizations (as part of the latter's CSR). Akwa Ibom State was the only state that provided information on parent stock of goats. The FCT built two (2) poultry and three (3) feed mills for farmers. It also distributed 3,000 bags of 25Kg pig feed to the farmers. The bee farmers were also provided with beehives, rainboots, bee smokers, hand-gloves and bee suits distributed.

12.6 Major Commercial livestock Farms in Nigeria

Table 12.13, 12.14 and 12.15 show the major commercial poultry farms, poultry hatcheries and commercial dairy farms in Nigeria respectively in 2021.

Table 12.12: Livestock farm inputs through Government sources

Zone/State	Input type	Quantity provided		Quantity distributed	No. of farm families benefited	Accessible by farmers?		Total estimated requirement for State
		FG	State Gov't			Yes	No	
Bauchi	CBPP vaccines PPR vaccines Anti-rabies vaccines		20,000 4,000 6,000	All	Statewide			
Kano	DOC							10 million
FCT	Poultry house		2	2	Statewide	Yes		-
	POL		900	900	30	Yes		-
	Pullets		6,800	6,800	70	Yes		-
	Poultryfeed (25Kg)		1,000	1,000	50	Yes		-
	Feed mills		3	3	Statewide	Yes		-
	DOC		37,771	37,771	Statewide	Yes		-
	Pig feed (25Kg)		3,000	3,000	Statewide	Yes		-
	Bee hives, boots, smokers, suites		75 each	75 each	Statewide	Yes		-
Lagos	Layer mash (bags)		2,000	20 /farmer	100	Yes		10,000
	Broilers		3,000	2,700	300	Yes		50,000
	Pullets		7,700	7,315	770	Yes		50,000
	Turkeys		800	720	720	Yes		50,000
	IBD vaccines		50,000	50,000	220	Yes		50,000
	Fowl Pox vaccines		50,000	50,000	220	Yes		50,000
	NCD vaccines		50,000	50,000	220	Yes		50,000

Table 12.12 Cont'd: Livestock farm inputs through Government sources

Agro-ecological zone/State	Input type	Quantity provided (specify unit) by			Quantity distributed	No. of farm families benefited	Is it considered accessible by farmers?		Total estimated requirement for your State
		FG	State Gov't	Others			Yes	No	
South West									
Ogun	Grower feed (bags)		1,108		1,108	770	Yes		
	Broiler feed (bags)		790		790	300	Yes		
	Turkey feed		1,082		1,082	720	Yes		
Osun	DOC		20,000		20,000	100	yes		120,000,000
	Poultry vaccines/drugs		4,500,000		4,500,000	100	Yes		2,700,000
	Poultry feeds (bags)		28,000		28,000	100	Yes		16,800,000
	Livestock vaccines/drugs		30,000		30,000	30,000	Yes		240,000
South East									
Abia	Poultry vaccines/drugs	-	-	-	-	-	-	-	6,000,000
Ebonyi	Anti-rabies vaccine	3,500			1,000	--	-		-
Imo	DOC			20,000	20,000	250	Yes		60,000
	Poultry vaccines/drugs			10,000	10,000	250	Yes		-
South South									
	Goats (doe & buck)		5,000		5,000	1,666		No	1,370,190
Edo	Livestock vaccines/drugs		536		536	87	Yes		1,700

Table 12.13: Major Commercial Poultry Farms in Nigeria

Agro-ecological zone/State	Name of company	Ownership	Location	Products	Production capacity (No of stocks per production cycle)	Actual production	
						2020	2021
North East							
Adamawa	Kat Farms	Private	Yolde pate	Broilers	2,000	-	-
	Ghaji Farms	Private	Jambutu	Broilers	5,000	-	-
	First Class Farms	Private	Damilu Jimeta	Broilers	3,000	-	-
	Zacharia Musa Farm	Private	Jambutu	Broilers	3,000	-	-
	Fur Kool Vet	Private	Malamin Yola	Broilers	8,000	-	-
	Alfa Seconde	Private	Wuro Jabbe	Broilers	10,000	-	-
	Peter kingsley	Private	Nasarawo Jim	Broilers	2,000	-	-
	Spy farm Limited	Private	State poly	Broilers	1,500	-	-
	Musa Y Ahmed Farms	Private	Njoboli	Broilers	2,000	-	-
	Jimad Micro Investment	Private	Saminaka	Broilers	2,000	-	-
	Adiza Sonic	Private	Jimeta	Broilers	2,000	-	-
	Abdulsalam . S Farms	Private	Yola town	Broilers	1,500	-	-
	AB Adam	Private	Bypass Yola	Broilers	9,000	-	-
	Mohd Abubakar Farm	Private	Yola Town	Broilers	4,000	-	-
	Bornoma Farms	Private	Jimeta	Broilers	2,000	-	-
	M&B Adris	Private	Numan	Broilers	2,000	-	-
	Fabalos Farms	Private	Jimeta	Broilers	3,000	-	-
	Bashir Abubakar Farm	Private	Jimeta	Broilers	3,000	-	-
Ezekiel Onwususlu	Private	Numan road	Broilers	5000	-	-	
Bauchi	Alabarkidi	Private	Shira	Broilers, Layers	3000	3000	3000
	Raji Farm	Private	Bauchi	Broilers, Layers	5000	-	-
	Idiam Fram	Private	Ningi	Broilers, Layers	4000	-	-
	Goria Farm	Private	Shira	Broilers	3000	3000	-
	Argandu Farm	Private	Toro	Layers	60,000	80,000	30,000
	Yankari Farm	State Gov't	Toro	Layers	180,000	60,000	30,000
Gombe	Poultry Production Unit	State Gov't	Gombe	Broilers, Layers	25,000	25,000	25,000
	Biznillah Farms	Private	Gombe	Broilers, Layers	5,000	5,000	5,000
	Peter maidambe Farms		Kaltungo	Broilers, Layers	10,000	8,000	10,000
	Shamo Farms	Private	Kaltungo	Broilers, Layers	5,000	4,000	5,000
	Ibrahim Dasuki Farms	Private	Gombe	Broilers, Layers	7,000	8,000	8,000

Table 12.13 Cont'd: Major Commercial Poultry Farms in Nigeria

Agro-ecological zone/State	Name of company	Ownership	Location	Products	Production capacity (no of stocks per production cycle)	Actual production	
						2020	2021
North West							
Jigawa	Maigoro Farm	Private	Ringim	Broilers, Layers	30,000	5000	7,000
	Ladan Farms	Private	Kazaure	Broilers, Layers	150,000	-	-
Kaduna	Hybrid Farm	Private	Chikun	Layers	200,000	-	-
	Olam Farm	Private	Chikun	Layers	400,000	-	-
	Baby Rahma Farm	Private	Kagarko	Layers	40,000	-	-
	Ameer Farm	Private	Igabi	Layers	22,000	-	-
	Apla Peace farm	Private	Chikun	Layers	20,000	-	-
	-	-	-	Igabi	Layers	20,000	-
Kano	Nana Farm	Private	Dawakin Tofa	Broilers, Layers	50,000	-	-
	Mummy Farm	Private	Dawanau	Layers	50,00	-	-
	Sarauniya	Private	Dawakin Tofa	Broilers, Layers	50,000	100,000	100,000
	Almanash Farm	Private	Ungogo	Broilers, Layers	10,000	20,000	20,000
	Anadariya	Private	Bebeji	Broilers, Layers	50,000	100,000	100,000
Katsina	Darma Farm	Private	Katsina	Layers	30,000	20,000	30,000
	Rmun Farms	Private	Dutsinma	Layers	10,000	4,500	10,000
Sokoto	S.G. adiya farms	Private	Bodinga	Broilers, Layers	45,00	-	-
	Beni Integrated Farms	Private	Wammako	Layers	10,000	-	-
	SAAG Farms	Private	Wammako	Layers	5,000	-	-
	Ibrahim Gusau Farms	Private	Wammako	Broilers	5,000	-	-
	A.A Yabo Farms	Private	Sokoto South	Broilers, Layers	10,000	-	-
	Zayyanu Farms	Private	Wammako	Broilers, Layers	10,000	-	-
	Sawaba Farms	Private	Wammako	Broilers	5,000	-	-
	Junaidu Farms	Private	Sokoto North	Broilers, Layers	10,000	-	-
	A.I.G. Farms	Private	Yabo	Broilers, Layers	10,000	-	-
	Danababa Farms	Private	Shagari	Broilers, Layers	10,000	-	-
	Sirajo Farms	Private	Sokoto South	Broilers, Layers	10,000	-	-
	Ummu Jamil Farms	Private	Kware	Broilers, Layers	15,000	-	-
	P.P.U Farm	Private	Sokoton South	Broilers, Layers	10,000	-	-
	Masa'a Farms	Private	Kware	Broilers	5,000	-	-
	Abu Z. Farms	Private	Sokoto South	Broilers	2,000	-	-

Table 12.13 Cont'd: Major Commercial Poultry Farms in Nigeria

Agro-ecological zone/State	Name of company	Ownership	Location	Products	Production capacity (no of stocks per production cycle)	Actual production	
						2020	2021
North West							
Sokoto	Al-Ihsan Farms	Private	Sokoto South	Broilers	3,000	-	-
	Chick Tech Nig. Ltd	-	Wammako	Broilers, Layers	20,000	-	-
	Kakale Farms	Private	Tambuwal	Broilers, Layers	5,000	-	-
	Muhibbat Farms	Private	Bodinga	Broilers	10,000	-	-
	Rukayya Farms	Private	Sokoto South	Broilers, Layers	1,000	-	-
	Saidu Umar Farms	Private	Sokoto South	Broilers, Layers	10,000	-	-
	Ta'al Asamu Farms	Private	Sokoto South	Broilers	2,000	-	-
	Usman Farms	Private	-	Broilers	2,000	-	-
	Maitas Farms	Private	Sokoto North	Broilers	1,000	-	-
	Hassan A. Farms	Private	Kebbe	Broilers	1,000	-	-
	Asiya Farms	Private	Wammako	Broilers	1,000	-	-
	Bashir Farms	Private	Kware	Broilers	2,000	-	-
	Twaidi Farms	Private	Binji	Broilers, Layers	5,000	-	-
	Abubakar Madugu Farms	Private	Sokoto South	Broilers	5,000	-	-
	Shehu Farms	Private	Kware	Broilers, Layers	10,000	-	-
	Kasarawa Farms	Private	Wammako	Broilers	1,000	-	-
	Hajara Farms	Private	Sokoto South	Broilers	2,000	-	-
	Gidanmadi farms	Private	Kware	Broilers	2,000	-	-
	Maidabo farms	Private	Sokoto South	Broilers	3,000	-	-
	Arziki & Sons Farns	Private	Kware	Broilers, Layers	10,000	-	-
Maruda Integrated Farms	Private	Kware	Broilers, Layers	5,000		-	
Zamfara	Kun Numa farms	Private	Gusau	Layers	3,000	5,000	6,000
	Guruza Farms	Private	Gusau	Layers	4,000	8,000	10,000
	Nagwamatse farm	Private	Gusau	-	-	-	-
	Abu bawa farm	Private	Gusau	-	-	-	-
	Magaji farms	Private	Bungudu	-	-	-	-
	AB Farms	Private	Shinkafi	-	-	-	-

Table 12.13 Cont'd: Major Commercial Poultry Farms in Nigeria

Agro-ecological zone/State	Name of company	Ownership	Location	Products	Production capacity (no of stocks per production cycle)	Actual production	
						2020	2021
North Central							
Benue	Monday Eba Farm	Private	Makurdi	Broilers, Pullets	-	-	-
FCT	Efugo Farms	Private	Kuje	Layers	25,000	25,000	10,000
	Premium Farms	Private	Kuje	Layers	200,000	200,000	-
	Map Farms	Private	Kuje	Broilers	5,000	5,000	-
Kogi	Mack Farm	Private	Adavi	Layers	-	-	-
	Vami Farm	Private	-	Layers	4,000	4,000	4,000
	Ola Farm	Private	-	Layers	3,500	3,500	3,500
	Chioma Farm	Private	-	Layers	5,000	5,000	5,000
	Divine Farm	Private	-	Layers	2,500	2,500	2,500
Kwara	Yamfy	-	Oyun	Broilers, Layers	100,000	-	-
	Dety	-	Oyun	Broilers, Layers	90,000	-	-
	New Canaan	-	Ifelodun	Broilers, Layers	15,000	-	-
	Valentine	-	Edu	Broilers, Layers	120,000	-	-
	Aromak	-	Asa	Broilers, Layers	10,000	-	-
Taraba	Banbicch farms	Private	Wukari	Broilers	1000	-	-
	Amasan Farms	Private	Wukari	Broilers, Layers	-	-	-
	Nwuban farms	Private	Jalingo	Broilers	3500	-	-
	C.O. A.	State Gov't	Jalingo	Broilers	2,700	-	-
	T.K. Audu Farms	Private	Jalingo	Layers	-	-	-
	Vinyl Farms	Private	Jalingo	Broilers	5,100	-	-
South West							
Ekiti	ABUAD Farms	Private	Ado - Ekiti	Broilers, Layers	5000	4500	5000
	Aladeyelu Poultry Farm	Private	Ado - Ekiti	Broilers, Layers	10,000	10,000	10,000
	Adebayo Farms	Private	Ado - Ekiti	Layers	25,000	25,000	25,000
	Chicken Farms	Private	Ikere	Broilers, Layers	25,000	25,000	25,000
	Metrovet Poultry Farms	Private	Ado - Ekiti	Broilers, Layers, Pullets	25,000	25,000	25,000
	Rolat Poultry Farm	Private	Ado - Ekiti	Broilers, Layers, Pullets	700	8,400	9,000
	Delight Poultry Farm	Private	Ado - Ekiti	Broilers, Layers, Pullets	-	-	-

Table 12.13 Cont'd: Major Commercial Poultry Farms in Nigeria

Agro-ecological zone/State	Name of company	Ownership	Location	Products	Production capacity (no of stocks per production cycle)	Actual production	
						2020	2021
South West							
Ekiti	EKSU Poultry Farm	Private	Ado - Ekiti	Broilers, Layers, Pullets	-	-	-
	Akeredolu Poultry Farm	Private	Ado - Ekiti	Broilers, Layers, Pullets	-	-	-
Lagos	Ayedoto Poultry Estate	State Gov't	Ojoo	Broilers, Layers	1,500,00	-	-
	Erikorodo Poultry Estate	State Gov't	Ikorodu	Broilers, Layer	500,00	-	-
	Farm Fresh Farms	Private	Ikorodu	Broilers, Layer	100,000	-	-
	J6 Farms	Private	Epe	Broilers, Layers	60,000	-	-
	Adenuga Farms	Private	Ikorodu	Broilers, Layers	50,000	-	-
Ogun	Agnes Farm	Private	Ewekoro	Broilers, Layers, Pullets	-	20,000	26,000
	S&D Farms	Private	Odeda	Broilers, Layers, Turkey	-	120,000	140,000
	Ogun Broilers	State Gov't	Odeda	Broilers	-	120,000	40,000
	Treasure Farm	Private	Odeda	Layers	-	80,000	60,000
	Gofamint Farm	Private	Ewekoro	Broilers, Layers, Pullets	-	140,000	140,000
	Adewale Farm	Private	Ewekoro	Broilers, Layers, Pullets	-	-	-
	Sodipe Farm	Private	Ifo	Broilers, Layers, Pullets	-	240,000	270,000
	Fabo Farm	Private	Ifo	Broilers, Layers, Pullets	-	78,000	159,000
	Ecogreen Farm	Private	Ijebu East	Layers	122,000	122,000	122,000
	Animal Care	Private	Ikenne	Broilers, Layers, Pullets, Turkey	100,000	100,000	100,000
	Pally Agro Farm	Private	Obafemi Owode	Broilers, Layers, Pullets	100,000	100,000	100,000
	Al-amin Groups Farm	Private	Ijebu Ode	Layers	100,000	100,000	100,000
	Golden Yolk Farm	Private	odogbolu	Pullets	100,000	100,000	100,000
	Ondo	Olonimoke Farms	Private	Akoko N/West	Layers	10,000	5,000
Akinbuwa S. J. Farm		Private	Irele	Broilers, Layers	2,000	2,000	1,500
Adesida Farm		Private	Akure Southa	Layers	8,000	5,000	3000
Adegoke Farm		Private	Akure North	Layers	10,000	5,000	3000
Aroloye Olufemi Farm		Private	Idanre	Broilers, Layers	4,000	2,000	1500

Table 12.13 Cont'd: Major Commercial Poultry Farms in Nigeria

Agro-ecological zone/State	Name of company	Ownership	Location	Products	Production capacity (no of stocks per production cycle)	Actual production	
						2020	2021
South West							
Osun	RTO Farms	Private	Ede	Layers	-	-	-
	Farm Support	Private	Ayedire	Layers	300,000	-	-
	GS Farms	Private	Osogbo	Layers			-
	Bob JOHNS	Private	Orolu	Layers	200,000	-	-
	Fabulous	Private	Irewolu	Layers	15,000	-	-
	Femat	Private	Ejigbo	Broilers, Layers	3000	-	-
	Yemicare	Private	-	Broilers, Layers	4,500	48,000	50,000
	Olagboye	Private	Ejigbo	Broilers, Layers	35,000	10,000	15,000
	Daniba	Private	Osogbo	Broilers, Layers	10,000	5,000	7,000
Greengold	Private	Olarunda	Broilers, Layers	15,000	7,000	6,000	
Oyo	Zartech	Private	Ibadaan South west	Broilers, Layers	-	-	-
	Ilaji Farms	Private	Ona Ara	Broilers, Layers	-	-	-
	Fol Hope	Private	Ona Ara	Broilers, Layers	-	-	-
	CHI Ajanla	Private	Oluyole	Broilers, Layers	-	-	-
	AMO	Private	Afijio	Broilers, Layers	-	-	-
	Bronco Farms	Private	Ibadan South West	Broilers, Layers	-	-	-
South East							
Abia	UPS farms	Private	Mbawsi	Broilers, Layers	10,000 broilers 100,000 layers	10,000 broilers 100,000 layers	110,000 broilers 40,000 layers
	Kelechi farms	Private	Ubakala	Layers	28,000	28,000	28,000
	East Goshen Farm	Private	Ikot Ekpene	Layers	25,000	25,000	20,000
	UOO Farms	Private	Urata, Aba South	Layers	30,000	30,000	21,000
	Dutty Farms	Private	Ugwunagbo	Layers	14,000	12,000	12,000
	Divine favour farms	Private	Umuana, Umuahia North	Broiler	10,000	6,000	6,000
Anambra	Eagle Farms	Private	Orunba South	Layers	-	-	-
	Nke Onyemetalu	Private	Orumba North	Layers	-	-	-
	Somachi	Private	Awka North	Broilers, Pullets	-	-	150,000 broilers 200,000 eggs/week
	Emeka Farms	Private	Oyi North	Pullets	-	-	450,000

Table 12.13 Cont'd: Major Commercial Poultry Farms in Nigeria

Agro-ecological zone/State	Name of company	Ownership	Location	Products	Production capacity (no of stocks per production cycle)	Actual production	
						2020	2021
South East							
Anambra	Umebe Farm	Private	Ohaukwu	Broilers, Layers	-	-	
	Josel Farm	Private	Abakaliki	Broilers, Layers	-	-	
	Igboji Farm	Private	Ikwu	Broilers	-	1,500	1,500
Enugu	Sunchi Farms	Private	Enugu East	Broilers	-		
	Phino Mar Farms	Private	Enugu North	Broilers, Layers		72,000	74,000
	Demaco	Private	Enugu East	Broilers, Layers	-		
	Amarachi	Private	Igbo-Eze North	Layers		-	-
	Living Spring	Private	Enugu South	Layers	-	-	-
	Ozokwor	Private	Enugu North	Broilers	-		
Imo	C.J. Farms	Private	Izombe	Layers			
	Ngozi farms	Private	Owerri West	Broilers, Layers	5,000	2,300	4,000
	Odiwara farms	Private	Owerri North	Broilers, Layers	2,000	2,000	4,000
	Umuojinke yaone	Private	Owerri West	Pullets			
	E-Pack Farms	Private	Owerri West	Pullets			
	PSF farms	Private	Mbaifoli	Pullets			
	Imo Victory	Private	Mbaifoli	Pullets, Broilers			
South South							
Akwa Ibom	Thompson Farms	Private	Abak	Broilers	20,000	150,000	100,000
	Fresh Gren LTD	Private	Ikot Ekpene	Broilers, layers	2,000	6,000	2,000
	James bassey	Private	Oron	Layers	2,000	2,000	2,000
	Vika Farms	Private	Uyo	Pullets	3,500	14,000	10,500
Bayelsa	Veejay Int'l farms	Private	Ogbia	Broilers, Layers, Cockerels	8,000	11,500	8,050
Delta	Ovo Farms	Private	Okpe Ethiope East	Pullets	3000	7000	3000
	Erire Farms	Private	Ughelli North	Broilers	3000	2000	3000
Edo	Fem Farms	Private	Ikpoba-Okha	Broilers, Layers	8,000	64,000	45,000
	JIL Farms	Private	Ovia North East	Layers	3,500	11,500	
	Dhovet Farms	Private	Esan West	Broilers	1,500	6,000	4,000
	Uzamere Farms	Private	Uhunwode	Broilers	2,500	10,000	5,000
	Ada Farms	Private	Ikpobz-Okha	Broilers, Layers	10,000	2,000	8,000

Table 12.13 Cont'd: Major Commercial Poultry Farms in Nigeria

Agro-ecological zone/State	Name of company	Ownership	Location	Products	Production capacity (no of stocks per production cycle)	Actual production	
						2020	2021
South South							
Edo	Igbito Nigeria Limited	Private	Ikpoba-Okha	Broilers	-	-	-
	Rews Farm LTD	Private	Ikpoba-Okha	Broilers	-	-	-
	Victoria Aghaku Farms	Private	Oyia North East	Broilers	-	-	-
	Gouvet farm	Private		Broilers	-	-	-
Rivers	ORK Int'l Farms	Private	Obalga	Broilers, Pullet	10,000	8,000	8,000
	Amu A.C Farms	Private	Onelga	Broilers, Pullet	5,000	5,000	5,000
	Nwachukwu Farms	Private	-	Broilers, Pullet	5,000	4,000	4,000

Table 12.14: Major Poultry Hatcheries in Nigeria

Agro-ecological zone/State	Name of company	Ownership	Location	Products	Production capacity (no of stocks per production cycle)	Actual production	
						2020	2021
North East							
Bauchi	Paradex	Private	Toro	Broilers, layers	50,000	-	-
	Doma Farms	Private	Bauchi	Broilers, Layers	-	-	-
	Yankari Farms	Federal Gov't	Toro	Broilers, Layers	80,000	50,000	30,000
Gombe	P. P. U.	State Gov't	Gombe	Broilers, Layers	24,000	15,000	-
	FCET	Federal Gov't	Gombe	Broilers, Layers	3,000	5,000	-
	Sabitu Ya'u Farms	Private	Gombe	Broilers, Layers	2640	2,000	2,800
	Abdulkadir Abdullahi Farms	Private	Gombe	Broilers, Layers	7,500	5,000	8,000
	Ibrahim Dasuki Farms	Private	Gombe	Broilers, Layers	2000	2000	3,500
North West							
Kaduna	Olam Hatcheries	Private	Chikun	Broilers, Layers	1,600,000 weekly	600,000 metric tonnes	600,000 metric tonnes
Kano	PHED Agro	Private	Sabon Gari	Broiler, Pullets	400,000	400,000	400,000
	Sovet Int'l	Private	Tarauni	Layers, Broilers	700,000	870,000	865,200
Zamfara	P.P.U Gusau	State Gov't	Gusau	-	-	-	-
North Central							
FCT	Lareema Farms	Private	Gwagwalada	Broiler, Layers	186	-	-
	Mary J Farms	Private	Gwagwalada	Broilers, Layers	370	-	-
Kogi	Macks farms	Private	Osawa, Adavi	Broilers, Layers	-	-	-
Kwara	Yamfy	Private	Oyun	Broilers, Layers	138,000	-	-
	Denty	Private	Oyun	Broilers, Layers	80,000	-	-
	Valentine	Private	Edu	Layers	120,000		
Taraba	COA	State Gov't	Jalingo	Broilers, Layers, Pullets	4,250	4,050	6,000
South West							
Ekiti	Aquatem Solutions	Private	Ado-Ekiti		30,000	150,000	-
Ogun	Obasanjo Holdings Ltd	Private	Abeokuta North	Broilers	300,000	1,680,00	-
	Obasanjo Farms	Private	Owiwi	Broiler, Pullets, Turkey	15,000 birds/cycle 30,000 birds/week	-	-

Table 12.14 Cont'd: Major Poultry Hatcheries in Nigeria

Agro-ecological zone/State	Name of company	Ownership	Location	Products	Production capacity (no of stocks per production cycle)	Actual production	Agro-ecological zone/State
South West						2020	2021
Ogun	Nu-Breed	Private	Obafemi Owode	Broiler, Turkey	10,000 birds/cycle 20,000 birds/week	-	-
	Funtes farms	Private	Enuren	Broilers, Pullets, Cockerels	15,000 birds/cycle 30,000 birds/week	-	-
	Forth-worth Farms	Private	Ika Ogunola Awowo Village	Broiler, Pullets, Cockerels	15,000 birds/cycle 30,000 birds/week	-	-
	Baykos Agro-allied Co. Ltd	Private	Wasimi	Broilers, Pullets, Cockerels	10,000 birds/cycle 20,000 birds/week	-	-
	Colamin farm	Private	Alabata Road, Abeokuta	Broilers, Pullets, Cockerels	15000 birds/cycle 30,000 birds/week	-	-
Ondo	1836	Private	Ondo West	All	10,000/week	-	-
	Olu-Ade Hatcheries	Private	Ifedore	All	10,00/week		
Osun	Tuns Holdings	Private	Osogbo	Broilers	-	1,400,000	1,150,000
	Farm Support	Private	Ayedire	Broilers, Pullets	-	2,600,000	2,100,000
	RTO Hatchery	Private	Ede	Broilers, Pullets	120,000	2,150,000	2,900,000
	GS Hatchery	Private	Ede	Broilers, Pullets	120,000	2,080,000	2,500,000
South East							
Ebonyi	Ebonyi State Hatchery	State Gov't	Abakaliki	Broilers, Layers	5000/cycle	5,000	7,500
Enugu	Animal Health	Private	Nkanu East	Broilers, Pullets	30,000	-	-
	Mosco	Private	Enugu South				
	Sunchi Farm	Private	Enugu East	Broilers, Pullets	60,000	-	-
Imo	Gofons Farm	Private	Owerri North	Broilers	30,000	30,000	30,000s
	Imo Hatchery	State Gov't	Owerri municipal	Broilers	3,000	-	-
	Amaraku hatchery	Private	Isiala mbaino	Broilers	2,000	-	-
South South							
Akwa Ibom	Akwa Prime Hatchery	State Gov't	Uruan	Broilers	1,000,000	-	-
Bayelsa	Sienam	Private	Ogbia	Broilers	6,000	10,000	11,500

Table 12.15: Major Commercial Dairy Farms

Agro-ecological zone/State	Name of company	Ownership	Location	Products	Production capacity (no of stocks per production cycle)	Actual production	
						2020	2021
North East							
Adamawa	Benue Valley Farms	Private	Fufure	Dairy cattle	-	-	-
	Sebore Farms	Private	Mayo Belwa	Dairy cattle	-	-	-
	Adda Mbilla Farms	Private	Yola South	Dairy cattle	-	-	-
	Sare Kwasam Farms	Private	Yola South	Dairy cattle	-	-	-
Bauchi	Harde Farm	Private	Toro	-	72,000	34,000	36,000
	Akoma Gona	Private	Katagum	-	250/day	91,250	150,000
	Gouria	Private	Shira	-	100/day	31,680	36,500
	Ardo Bauchi Farm	Private	Toro	Dairy cattle	400 litres	350 litres	400 litres
	Sullabaa Cattle Rearers	Private	Gobirawa	Dairy cattle	750 litres	750 litres	800 litres
Gombe	Ardo Isah Farm	Private	Akko	White Fulani	50 litres/day	18,100 litres	18,100 litres
	Inuwa Makama Farm	Private	Gombe	Sokoto Gudali, White Fulani	100 litre/day	36,500 litres	36,500 litres
	Habu D.K. Farm	Private	Gombe	Sokoto Gudali, White Fulani	100 litre/day	36,500 litres	36,500 litres
	Musa Farm	Private	Gombe	Sokoto Gudali, White Fulani	120 litre/day	43,800 litres	43,800 litres
	Adamu Jauro Farm	Private	Kko	White Fulani	150 litre/day	54,750 litres	54,750 litres
North West							
Jigawa	Maigoro farms	Private	Ringim	Fresian, Jersey, White Fulani	500 litres	10,000 litres	12,000 litres
Kaduna	Zaidi farm	Private	Kaduna	Milk	-	-	-
	Maidoki farm	Private	Zaria	Milk	-	-	-
Kano	L&Z	Private	Zaria Road	Fresian and Cross breed	-	-	-
Sokoto	Mutawalle farms	Private	Kware	Jersey, Sokoto Gudali, Brangus, Holstein	135 litres/day	49,275 litres	-
	Bankanu Farms	Private	Kware	Jersey, Sokoto Gudali, Brangus, Holstein	180 litres/day	65,700 litres	-
	Sidi Akibu Farms	Private	Sokoto South	Jersey, Sokoto Gudali, Brangus Holstein	540 litres/day	197,100 litres	-
	Sidi Umar Farms	Private	Wammako	Jersey, Sokoto Gudali, Brangus Holstein	210 litres/day	76,650 litres	-

Table 12.15 Cont'd: Major Commercial Dairy Farms

Agro-ecological zone/State	Name of company	Ownership	Location	Products	Production capacity (no of stocks per production cycle)	Actual production	
						2020	2021
North West							
Sokoto	Gidado Farms	Private	Sokoto North	Jersey, Sokoto Gudali, Brangus Holstein	50 litres/day	18,250 litres	-
	Danjibo Farms	Private	Wammako	Jersey, Sokoto Gudali, Brangus Holstein	240 litres/day	87,600 litres	-
	Abdulazeez Farms	Private	Wammako	Jersey, Sokoto Gudali, Brangus Holstein	450 litres/day	164, 250 litres	-
	Afri Generic Faarms	Private	Kware	Jersey, Sokoto Gudali, Brangus Holstein	390 litres/day	142, 350 litres	-
	G.D.D. Farms	Private	Shagari	Jersey, Sokoto Gudali, Brangus Holstein	360 litres/day	131,400 litres	-
	Julde Halliru Farms	Private	Yabo	Jersey, Sokoto Gudali, Brangus Holstein	210 litres/day	76,650 litres	-
	Jarma Farms	Private	Sokoto South	Jersey, Sokoto Gudali, Brangus Holstein	195 litres/day	71,175 litres	-
	Associated Farms	Private	Sokoto North	Jersey, Sokoto Gudali, Brangus Holstein	50 litres/day	18.250 litres	-
	Magatakarda Farms	Private	Wammako	Jersey, Sokoto Gudali, Brangus Holstein	50 litres/day	18.250 litres	-
	S.M.T.A. Farms	Private	Wammako	Jersey, Sokoto Gudali, Brangus Holstein	50 litres/day	18.250 litres	-
	A.A Goronyo Farms	Private	Goronyo	Jersey, Sokoto Gudali, Brangus, Holstein	50 litres/day	18.250 litres	-
Zamfara	Nagwamatse Farm	Private	Gusau	-	-	-	-
North Central							
FCT	Hassan Ku Farm	Private	Kuje	Cattle	70	70	-
	Zakari S. Farm	Private	Ruga	Cattle	24	24	-

Table 12.15 Cont'd: Major Commercial Dairy Farms

Agro-ecological zone/State	Name of company	Ownership	Location	Products	Production capacity (no of stocks per production cycle)	Actual production	
						2020	2021
South West							
Ekiti	Promosidor Ikun Dairy Farm	Private	Ikun (Moba)	Jersey breed	10,000 litres/day		3,000,000 litres
Osun	WAMCO	Joint	Ede	Milk	6,000	-	-
		Joint	Iwo	Milk	6,000	-	-
		Joint	Ile-Ogbo	Milk	6,000		
Oyo	Firesland	-	-	All breeds	-	-	-
	Research dairy	-	-	All breeds	-	-	-
	SMAP farm	-	-	All breeds	-	-	-
	Rom Rom Farm	-	-	All breeds	-	-	-
	Saved farm LTD	-	-	All breeds	-	-	-
	Faan Milk Plc	-	-	All breeds	-	-	-

Costs of Livestock Production Inputs and Species

Table 12.16 shows the costs of day-old chicks of broilers at the rate of N450 in July 2020 and July 2021. However, the cost was higher in January 2021 (N420) as against January 2020 (N250). There was 71.4% increase in the prices of day-old-chick in Akwa Ibom State in 2021 as against 2020. The cost of feed materials generally increased in 2021. Table 12.17 shows the average production cost of livestock (per unit) in 2020 compared to 2021. The cost producing majority of livestock species in 2021 was higher. This was probably due to the high cost of input and raw materials.

Table 12.16: Cost of livestock production inputs

Agro-ecological zone/State	Livestock production inputs	Unit	Market name	Category of market		2020		2021	
				Urban	Rural	January	July	January	July
South West									
Ogun	DOC Broiler		Hatchery	Yes		250	450	420	450
	Broiler Starter	Kg	Vet/Livestock Store	Yes		152	160	340	360
	Broiler Finisher	Kg	Vet/Livestock Store	Yes		155	160	290	312
	Layer Mash	Kg	Vet/Livestock Store			120	140	250	272
	Maize	Kg	Olodo		Yes	200	220	400	420
	Soybean	Kg	Lafenwa	Yes		250	260	-	-
	DOC Layer		Hatchery	Yes		250	330	320	350
South South									
Akwa Ibom	Day-old-chicks	1	Agro dealer	Yes		350	450	600	650
	Chick starter feed	25kg	Ekpene Ukim		Yes				

Table 12.17: Average production cost of livestock (per unit)

Agro-ecological zone/State	Livestock species	Cost per unit of livestock (₦)	
		2020	2021
North West			
Jigawa	Cattle	250,000	320,000
	Sheep	60,000	80,000
	Goats	25,000	30,000
FCT	Broilers	1,686	1,872
	Sheep and goats	1,102	1,250
	Pigs	31,950	36,950
	Cattle	150,000	160,000
	Sheep	30,000	32,000
	Goat	20,000	21,000
	Broiler	2,000	2,200
	Spent layer	1,150	1,160
	Rabbit	4,500	4,700
Kwara	Cattle (fattening for 4 months)		134,000
	Sheep and goats fattening		19,000
	Broilers (6 weeks)		2,000
	Pullets (Point-of-Lay)		1,800
Niger	Poultry	3,000	3,500
	Goat	30,000	45,000
	Cattle	140,000	180,000
Ogun	Female goat (doe)		17,950
	Pigs (weaner)		53,000
Ebonyi	Goat	15,000	17,500
	Cattle (local breed – Efeigbo)	150,000	180,000
	Broiler (Day old chick)	280	300
	Pullet (Day old chick)	280	300
	Piglets	75,000	100,000
	Pig (adult)	150,000	180,000

12.8 Livestock Production Related Risks

Table 12.18a shows the information on farmers-pastoralists conflicts across the country and the extent of damage in 2021. Sixteen (16) States across the zones recorded conflicts. Out of the 16 states, 7 states (Adamawa, Kogi, Sokoto, Ekiti, Ondo, Ebonyi and Delta) had no records of livestock loss. Plateau State recorded the highest number of human (1,200) and livestock (2,000) loss due to farmer-pastoralist conflicts in 2021. This was followed by Akwa Ibom (35 humans), Ogun (18 humans) and Edo (12 humans). Other States which recorded loss of human and livestock were Taraba and Oyo States. Several property and crops were lost from 200Ha, 74.5Ha and 50Ha of farmlands in Ogun, Akwa Ibom and Sokoto states respectively.

The report of cattle rustling was rampant in 13 states in 5 zones excluding the South East (Table 12.18b). Majority of the rustling cases were recorded in North Central (Taraba and Plateau), followed by the South West (Ogun and Oyo) and the South South (Akwa Ibom and Edo) zones. Plateau State had the highest number of livestock (7,000) and human (800) loss. Edo State recorded more than 300 livestock lost, followed by Ogun (127 cattle), Bauchi (70) and Akwa Ibom (70). Akwa Ibom had 12 human deaths recorded while Edo and Bauchi States recorded no loss of human lives.

Table 12.18c shows the records of kidnapping cases in 2021 from 13 states in 5o-ecological zones excluding South East. Plateau State recorded the highest number of livestock (1,500) and human lives (700) lost. Kidnapping cases were rampant in all the LGAs in Oyo State with many human and livestock affected. Eight (8) states out of the 13 reported states recorded no human death from kidnapping.

The following suggestions were made to reduce farmers-herders' conflicts, cattle rustling and kidnapping across all the states in Nigeria:

- Survey and demarcation of livestock routes and grazing reserves
- Recruitment of range guards and local vigilantes to protect the farmers and the farm lands
- Eviction of illegal encroachers in the grazing reserves
- Peaceful dialogue and negotiations between the villagers, pastoralists and farmers
- Encouragement of pasture development in communities as a business
- Speedy legislation of ranching and ban of the open grazing system.

Table 12.18a: Information on pastoralist-farmer conflicts and the extent of damage

Zone	Frequency of occurrence	Location	NO. of livestock lost	Properties/ Crops lost	Number of human life lost
North East					
Bauchi	1	Misau	2	-	-
	1	Darazo	2		
Adamawa	Few	Song			3
Gombe	2	Kwami	15	-	-
	1	Y/Deba	20		
	4	Akko	18		
	3	Dukku	8		
	2	Funakaye	6		
North Central					
Taraba	3	Bali	50	Many houses	Many lives
	4	Lam K/Lamido	50		
	2	Ardo-Kola	50		
	2	Donga	50		
Plateau	5	Bassa	2,000	Houses, Vehicles	1,200
Benue	1	Mbakuy	-	-	-
	1	Onyagede			
	2	Allan-Akpa			
Kogi	Few	Omala, Dekina	-	-	-
North West					
Sokoto	1	Yabo	-	Cowpea, maize, millet from 50 Hectare (Ha)	-
South West					
Ekiti	Frequent	Ikole & environs	-	-	-
Ondo	Weekly	Across the state	-	-	-
Oyo	Always	All LGAs	Numerous	Many	Many
Ogun	Frequent	Igbota, Ketu-Isale, Abeokuta, Igbonla, Asa, Ologinni, Moro	135	Crops: Maize and cassava from 200 Ha of land	18
South East					
Ebonyi	2	Onicha, Oha-Ukwu, Ishelu	-	-	-
Abia	Very frequent	Isuikwuato,		84 Ha of crops	8
		Umunneochi		60 Ha of crops	3
		Bende		58 Ha of crops	5

South South					
Edo	Frequently	Ovia North East	15		5
		Ikpoba-Okha	10		2
		Esan North East	10		5
Delta	3	Udomi Abova	-	-	-
	20	Awuah Abbi			
Akwa Ibom	3	Oruk Anam	34	Houses. Cassava, Maize, Vegetables and Banana from 74.5 Ha of farmlands across all the locations	4
		Mkpat Enim	47		2
		Uyo	27		2
		Etinan	19		4
		Ika	87		6
		Obot Akara	143		10
		Essien Udim	127		7

Table 12.18b: Information on cattle rustling and the extent of losses

Zone	Frequency of occurrence	Location	Number of livestock lost	No. of human life lost
North East				
Bauchi	1	Gamawa (Udubo)	30	-
	1	Tafawa Balewa (Burga)	40	-
Adamawa	Few	Lamurde, Mayo, Belwu	-	-
North West				
Sokoto	Often	Isa, Sabon Birni and Tangaza	-	-
North Central				
FCT	1	Kuje and Environs	-	-
Taraba	15	Several locations	-	-
Plateau	Many times	Barkin Ladi	7,000	800
		Bokkos	-	-
	Frequent	Wase	-	-
Kogi	Frequent	Omala	-	-
		Dekina	-	-
South West				
Ondo	Monthly	Across the state	-	-
Ogun	Frequent	Across the state (Igbota, Ogunba Ayetoro, Ketu Isale, Sawonjo Farm, Ode-Omi, Egba, Moro)	127 cattle	-
Oyo	Always	All LGAs	Numerous	Many
South South				
Akwa Ibom	3 time per year	Okobo	13	4
		Etim Ekpo	22	2
		Ibiono Ibom	17	3
		Eket	18	3
Edo	Occasionally	Ovia North East	100	-
		Etsako Central	100	-
		Etsako East	100	-
Delta	Frequently	Statewide	-	-

Table 12.18c: Information on kidnapping and the extent of losses

Agro-ecological Zone	Frequency of occurrence	Location	Number of livestock lost	Number of human life lost
North East				
Adamawa	Few	Song, Fufure	-	-
North West				
Sokoto	Often	Isa, Sabon Birni and Tangaza	-	-
North Central				
Taraba	Rampant	All LGAs	-	Several
Plateau	Many times	Bokkos	1,500	700
Niger	4	Statewide	70	-
Kogi	Once	Adavi, Dekina	-	-
South West				
Osun	2	Obokun	-	-
	4	Oriade	2	
Ogun	1	Statewide	-	-
Lagos	4	Epe	-	-
Oyo	Always	All LGAs	Numerous	Many
South East				
Abia	Very frequent	Isuikwuato	-	12
South South				
Edo	Frequent	Etsako West	-	10
		Ovia North East	-	15
		Ikpoba-Okha	-	10
		Orionmwan	-	10
Delta	Frequent	Statewide	-	-
Akwa Ibom	Frequent	Uruan	20	13
		Ikot Ekpene	6	4

13.0. FISHERIES PRODUCTION SITUATION

Aquaculture production outputs in 2021 compared to 2020 on Table 13.1a revealed that only 28 states including FCT provided data. Marginal increases were recorded in production in 2021 in some Northern and Southern States. There was however, a decreasing trend in some Southern states (Lagos, Ondo, Osun and Oyo). This decrease in production may not be unconnected with the increase in the cost of inputs due to inflation. There was paucity of data for artisanal fisheries production in 2021 in all the zones (Table 13.1b); although Lagos, Ekiti, Delta and Imo states had data for 2021, the results showed a relative increase in production compared to 2020.

Data on aquaculture inputs (Table 13.2) situation revealed that only 8 States procured and distributed various fisheries inputs to farmers, some of the inputs procured and distributed are catfish fingerlings, fish feeds, fishing nets and agricultural lime. These inputs were provided to farmers at subsidized rates. The quantity of fresh and smoked fish marketed (Table 13.3) in 2021 shows that catfish species were the most traded fish species in all the states. Apart from the cat fish, tilapia was another fish which is favourably cultivated in Nigeria. Other fish species traded were *Heterobranchus* species, *Heterotis* species, *Labeo* species, *Lates niloticus* etc. Captured fisheries provided most of the fish species traded in both fresh and smoked in all the states. An indication of pressure on wild fish stock due to the reduction in aquaculture production output. This may affect the stock in the artisanal fisheries in the long run hence aquaculture production needs to be encouraged by provision of the necessary production inputs at subsidized rates.

Diseases of fish were reported in 6 across the zones (Table 13.4). This was likely due to lack of skilled manpower to identify and classify some of the fish diseases that were prevalent. Some of the diseases reported were Saprolegniasis, swollen belly, swollen eyes, white barbells, and gill rot. Reported treatments were the use of antibiotics and water quality monitoring and management.

Data on major commercial fish farms revealed that all the geopolitical zones have commercial fish farms (Table 13.5). However, only 23 states provided data on the production capacity of the commercial farms. In the Northern zone, the production capacity was between 3000 to 250,000 in Katsina and Kano states respectively. Kano State recorded the highest fish production of 250,000I in the Northern zone in 2021. Similarly, across the Southern zones production capacity ranged between 3000 to 500,000, and Abia State had the least while Ogun and Oyo State had the highest production capacity as well as actual production. All the commercial farms were privately owned. Major commercial fish hatcheries are shown on (Table 13.6). Only 14 states provided data on commercial fish hatcheries in Nigeria in 2021. All the fish hatcheries were owned by individuals. Kano and Kwara state had the highest fish fingerling production of 250,000 and 100,000 fingerlings respectively in the Northern part of Nigeria.

Abia and Cross-River states had the highest fingerlings production of 500,000 and 700,000 respectively across the Southern parts in 2021.

Table 13a: Aquaculture Production in States in 2020 and 2021

Zones/State	Species	Production in 2020 (MT)	Production in 2021 (MT)
North East			
Bauchi	<i>Clarias sp.</i>	5038.11	17
	<i>Tilapia sp</i>	504.7	9.5
	<i>Heterobranchus sp</i>	39.85	NA
	<i>Heteroclarias</i>	13.09	NA
Yobe	<i>Catfish</i>	15,840	NA
	<i>Tilapia</i>	12,500	NA
	<i>Heterotis</i>	600	NA
Borno	<i>Catfish</i>	1.6	1.8
North West			
Katsina	<i>Clarias sp</i>	2,864	NA
	<i>Tilapia sp</i>	1,969	NA
	<i>Heterotis sp</i>	101	NA
Zamfara	<i>Clarias sp</i>	565	190
	<i>Tilapia sp</i>	320	110
Jigawa	<i>Tilapia spp</i>	650	400
	<i>Clarias spp</i>	600	205
	<i>Heterobranchus spp</i>	400	140
Sokoto	<i>Clarias</i>	20	25
	<i>Tilapia</i>	5	3
North Central			
Benue	<i>Clarias sp</i>	3000	NA
	<i>Heterobranchus sp</i>	1500	NA
	<i>Tilapia sp</i>	1000	NA
FCT	<i>Clarias sp</i>	NA	94.10
Kogi	<i>Tilapia</i>	2,581	1,381
	<i>Clarias</i>	10,000	6,921
Nasarawa	<i>Clarias sp</i>	240	1680
	<i>Heterobranchus sp</i>	1500	1400
	<i>Carp</i>	50	NA
	<i>Tilapia</i>	120	1000
	<i>Heteritis</i>	70	30
Kwara	<i>Clarias sp</i>	2105.81	NA
	<i>Tilapia sp</i>	3.58	NA
Kogi	<i>Clarias sp</i>	378.15	NA
	<i>Heterobranchus sp</i>	56.7	NA
	<i>Heterotis spp</i>	19.75	NA
	<i>Gymnachus</i>	1.02	NA
Niger	<i>Clarias sp</i>	171,012	101,026

Table 13a (Contd): Aquaculture Production in States in 2020 and 2021

South West			
Ekiti	<i>Clarias sp</i>	2601	NA
Lagos	<i>Clarias spp</i>	26,642	21,450
	<i>Tilapia sp</i>	1290	3268.85
	<i>Chrysichthys sp</i>	6543.49	3305.08
	<i>Heterotis spp</i>	10.58	15.2
Ondo	<i>Clarias sp</i>	10,000	6,500
	<i>Tilapia sp</i>	85,000	5000
	<i>Chrysichthys sp</i>	15,000	1,000
Osun	<i>Clarias sp</i>	19,500	304.6
	<i>Tilapia sp</i>	20,000	
	<i>Heterotis sp</i>	70	
Oyo	<i>Clarias sp</i>	39,860	36,420
	<i>Tilapia sp</i>	17,000	14,209
	<i>Heterotis spp</i>	4,320	3,927
	<i>Late spp</i>	4,320	3,927
	<i>Gymnarchus spp</i>	3,240	2,945
Ogun	<i>Clarias spp</i>	829,795	NA
	<i>Tilapia spp</i>	250	NA
South East			
Abia	<i>Clarias sp</i>	0.4	0.45
	<i>Heterobranchus sp</i>	0.6	0.8
	<i>Carp</i>	0.2	0.25
Ebonyi	<i>Clarias sp</i>	7000	350
	<i>Heterobranchus sp</i>	3000	NA
Imo	<i>Clarias</i>	22,000	
	<i>Tilapia</i>	1,200	
South South			
Akwa-Ibom	<i>Catfish</i>	587.39	837.94
	<i>Tilapia sp</i>	339.32	344.65
Cross-River	<i>Clarias sp</i>	830	NA
	<i>Heterobranchus</i>	33	NA
	<i>Heterotis</i>	810	NA

Table 13.1b: Artisanal Fisheries Production in States in 2020 and 2021**

Zones/State	Species	Production in 2020 (MT)	Production in 2021 (MT)
North West			
Jigawa	Tilapia spp	600	NA
	Clarias spp	450	NA
	Heterobranchus	380	NA
	Synodontis	350	NA
	Bagrus bayad	300	NA
Katsina	Catfish	982	NA
	Tilapia	514	NA
	Bagrus	138	NA
	Schilbe	26	NA
	Heterobranchus	17.5	NA
	Alestes	22	NA
Zamfara	Clarias	190	192
	Tilapia	110	107
	Synodontis	114	122
	Labeo	128	120
Sokoto	Clarias	5	6
	Tilapia	3	4
	Heterobranchus	2	3
	Heterotis	1	NA
	Bagrus	2	1
North East			
Bauchi	Clarias	10.5	15.3
	Tilapia	2	4.8
North Central			
FCT	Clarias sp	1,688	33.64
Kogi	Tilapia	850	585
	Clarias	4,358	2,531
Kwara	Clarias sp	2,103.61	NA
	Oreochromis	3.53	NA
	Polypterus	0.89	NA
Kogi	Clarias sp	15	NA
	Heterobranchus sp	6	NA
	Synodontis	7	NA
Nasarawa	Clarias sp	230	NA
	Heterobranchus sp	230	NA
	Momyrus sp	45	NA
	Lates niloticus	100	NA
Niger	Clarias sp	43,076	NA

Table 13.1b (Contd): Artisanal Fisheries Production in States in 2020 and 2021

South West	Species	Production in 2020 (MT)	Production in 2021 (MT)
Lagos	Clarias	165,440	33.65
	Pseudotolithus sp	9,414	1845.78
	Pomadasosis sp	4,308	0.906
	Tilapia	5444.49	11.03
	Chrysichthys spp	446.3	0.83
	Polydactyllus	0	2508.46
	Ethmalosa	0	2531
	Heterotis	16.8	1.47
	Mormyrus spp	2.3	0.3
	Lutjanus spp	0	959.32
Ekiti	Catfish	622	NA
Ondo	Catfish	100,000	256,250
	Tilapia	85,000	86,875
	Chrysichthes	15,000	25,625
	Schilbe mystus	1,000	10,250
Osun	Catfish	24	16
	Tilapia	1.1	1.0
	Carp	1.3	1.4
	Heterotis	3.1	3.2
	Electric fish	0.5	0.6
Imo	Catfish	300	NA
	Tilapia	3000	NA
Ebonyi	Catfish	500	250
South South			
Akwa-Ibom	<i>Baracuda</i>	13.02	24.65
	<i>Bunga</i>	24.56	30.64
	<i>Catfish</i>	587.39	463.24
	<i>Crayfish</i>	259.32	375.61
	<i>Croaker</i>	130.33	145.22
	<i>Grunters</i>	19.32	21.64
	<i>Horse Mackerel</i>	10.03	9.73
	<i>Mullet</i>	22.05	21.64
	<i>Sardinella</i>	72.59	85.34
	<i>Soles</i>	20.77	11.33
	<i>Snapper</i>	33.61	28.47
	<i>Thread fin</i>	22.75	26.37
	<i>Tilapia sp</i>	11.98	15.45
	<i>Shining nose</i>	339.32	406.38
Rivers	Cray fish	10.07	NA
	Sadinella	1.20	NA
	Bonga sp	0.74	NA

Delta	Catfish	26,840	NA
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Table 13.2: Fisheries Input Situation in the States

Zones/State	Types of input	Quantity Procured		Quantity Distributed	
		2020	2021	2020	2021
Borno	Fingerlings	500	10,000	10,000	500
	Fish Feed (bags)	NA	1000	1000	NA
	Fish Ponds	50	50	45	40
Katsina	Fingerlings	15,000	NA	15,000	NA
	Fish feeds (bags)	300	NA	300	NA
	Borehole	3	NA	3	NA
FCT	Cold storage facility	15	NA	15	NA
	Fish feed	400	NA	400	NA
	Collapsible fish tanks	10	NA	10	NA
	Smoking kiln	10	NA	10	NA
Lagos	Outboard Engine	43	NA	43	NA
	Fish feed (bag)	3200	414,620	3200	414,620
	Fingerlings	NA	500,000	NA	500,000
	Broodstock	NA	200,000	NA	200,000
	Juveniles	NA	29,0500	NA	29,0500
Ondo	Juvenile	3,000	NA	NA	NA
	Fish net	1800m ²	NA	NA	NA
	Pond x 3	1800m ²	NA	NA	NA
	Pumping machine	1	NA	NA	NA
	Lime	75kg	NA	NA	NA
Osun	Net	NA	400	NA	400
	Rope	NA	25	NA	25
	Twine	NA	20	NA	20
	Lime	NA	20	NA	20
Ogun	Agric lime (Mt)	NA	5000	NA	5000
	Canoe	NA	NA	NA	NA
	Smoking kiln	NA	NA	NA	NA
	Nets	NA	100	NA	100
	Life Jacket	NA	500	NA	500
Ekiti	Tilapia	340	350	200	300
	Catfish	800	350	1000	400

Table 13.2 (Contd: Fisheries Input Situation in the States)

South South	Types of Input	Quantity Procured		Quantity Distributed	
		2020	2021	2020	2021
Delta	Fish feeds	9,540	NA	9,540	NA
	Fingerlings	180,000	NA	180,000	NA
Bayelsa	Fingerlings	NA	583,000	NA	583,000
	Fingerlings	NA	11660	NA	11660
Akwa-ibom	Fingerlings	NA	310,000	NA	310,000
	Juveniles	NA	465,000	NA	465,000
	Fish feed	NA	1,800kg	NA	1,800kg
	Fishing Net	NA	150	NA	150
	Floaters	NA	300	NA	3000
South East					
Imo	Fish Fingerlings	NA	1610,000		12000
	Fish Feed	NA	300,000		NA

Table 13.3: Fresh and Smoked Fish Traded in the States

Zones/State	Fish species	Quantity of fresh fish traded (MT)		Quantity of smoked fish traded (kg)	
		2020	2021	2020	2021
North East					
Bauchi	<i>Clarias spp</i>	3779.09	23.38	1269.70	25.48
	<i>Tilapia</i>	126.18	14.81	378.50	11.09
	<i>Heterobranchus sp</i>	29.89	NA	9.97	NA
	<i>Heteroclarias</i>	9.82	NA	3.27	NA
	<i>Synodontis</i>	279.02	NA	93.01	NA
	<i>Labeo</i>	294.10	NA	98.04	NA
	<i>Lates</i>	326.23	NA	108.74	NA
	<i>Cyprino carpio</i>	11.21	10.51	6.74	7.54
	<i>Alestes spp</i>	6.51	6.11	4.71	4.54
	<i>Heterotis spp</i>	450	4.70	3.81	3.39
Yobe	<i>Clarias spp</i>	1000	NA	890	NA
	Tilapia	120	NA	125	NA
	Bony tongue	140	NA	140	NA
	Lung fish	70	NA	40	NA
	Carp	200	NA	210	NA
North-West					
Katsina	Catfish	1517	340	1418	252
	Tilapia	1419	167	209	145
	Lates	201	165	60	97
Zamfara	<i>Clarias sp</i>	251	120	111	110
	<i>Tilapia sp</i>	106	NA	100	NA
Nasarawa	<i>Clarias</i>	68,000	75,000	83,000	70,000
	<i>Tilapia</i>	75,000	89,000	95,000	112,000
	<i>Heterotis</i>	39,000	41,000	100,000	101,000

Table 13.3 (Contd): Fresh and Smoked Fish Traded in the States

North-Central	Fish Species	Quantity of fresh fish traded (MT)		Quantity of Smoked Fish Traded (kg)	
		2020	2021	2020	2021
FCT	<i>Clarias spp</i>	1.35	1.2	NA	506.74
	Ice (Frozen fish)	7506	NA	NA	NA
Benue	<i>Clarias spp</i>	2300	NA	1500	NA
	<i>Heterobranchus spp</i>	1200	NA	1000	NA
	<i>Tilapia spp</i>	1200	NA	1300	NA
	<i>Aletes spp</i>	1600	NA	1300	NA
	<i>Synodontis spp</i>	1300	NA	1200	NA
Kogi	<i>Clarias sp</i>	236	NA	7941	NA
	<i>Heterobranchus</i>	35	NA	1194	NA
	<i>Oreochromis</i>	28	NA	2876	NA
	<i>Heterotis sp</i>	4.89	NA	100	NA
	Lates	0.49	NA	30	NA
	<i>Gymnachus sp</i>	0.1	NA	87	NA
Plateau	<i>Clarias</i>	2	2.5	1200	1500
	<i>Heterobranchus</i>	2.5	1.0	550	900
	<i>Tilapia</i>	1	1.5	200	500
	<i>Hybrid</i>	0.5	1.5	500	500
	<i>Carp</i>	5	10.5	1800	2250
Nasarawa	<i>Clarias spp</i>	450	NA	600	NA
	<i>Heteroranchus spp</i>	60	NA	50	NA
Kwara	<i>Clarias Spp</i>	2304.12	NA	364.55	NA
	<i>Heterobranchus spp</i>	5.125	NA	NA	NA
	Electric catfish	0.43	NA	NA	NA
South East					
Ebonyi	<i>Clarias spp</i>	7000	NA	6000	NA
	<i>Heterobranchus sp</i>	1000	NA	2000	NA
	<i>Tilapia sp</i>	2000	NA	2000	NA
	Bonga fish sp	1000	NA	1000	NA
Abia	<i>Clarias sp</i>	500	700	300	420
	<i>Tilapia</i>	300	400	300	400
	<i>Carp</i>	200	250	200	220
Anambra	<i>Clarias</i>	NA	25,000	NA	25,000
Imo	Makrel	80000	60000	80000	65000
	<i>Clarias</i>	207,000	21,000	26,000	26,000
	<i>Tilapia</i>	25,000	11,000	42,000	30,000
	<i>Carp</i>	75,000	15,000	32,000	22,000

Table 13.3 (Contd): Fresh and Smoked Fish Traded in the States

South West	Fish Species	Quantity of fresh fish traded (MT)		Quantity of Smoked Fish Traded (kg)	
		2020	2021	2020	2021
Lagos	Catfish	120,730	18.45	92,920	2343
	Tilapia	120,904	2751.4	92,102	11838.5
	Heterotis	9,103	11.42	7,509	1525.5
	Gymnachus	75,310	77.85	20,500	54870
	Chrysichthys	96001	2956.4	50,148	5533.05
	Croaker	12,418	3720.3	NA	1777.27
	Grunthers	6,745.75	2080.1	NA	9804.00
	Shiny nose	171.192	4540.3	93,100	4484.54
	Redsnapper	115,102	1457	89,106	563.7
	Sphyræna (Baracuda)	NA	15502	NA	400
	Momyrus sp	49.2	83.5	5426	6194
	Ethmalosa sp	4246	2144	2315	1863
	Synodontis spp	71	88.3	5400	7130
	Crayfish	NA	NA	NA	2500.8
Ekiti	Clarias sp	130	NA	800	NA
	Tilapia sp	95.3	NA	150	NA
	Heterobranchus sp	15	NA	280	NA
	Heterotis sp	2	NA	300	NA
Oyo	Clarias spp	39,860	32,200	NA	NA
	Tilapia	1700	1,160	7,480	6,800
	Heterotis spp	925	520.5	1,012	920
	Lates niloticus	4320	3,730	385	350
	Gymnachus	3240	2,300.7	2,700	2,455
	Snake head	343	312	253	230
	Bagrus	140	121	83	73
	Crysichthyes	1,496	1,360	1,210	1,100
	Synodontis	353	320	193	175
Prawn	453	412	352	320	
Ogun	Catfish	270	NA	NA	NA
	Tilapia	250	NA	NA	NA
	Heterotis	400	NA	NA	NA
	Lates	100	NA	NA	NA
	Momyrus	200	NA	NA	NA
	Crayfish	200	NA	NA	NA
	Crabs	200	NA	NA	NA

Table 13.3 (Contd): Fresh and Smoked Fish Traded in the States

South South	Fish species	Quantity of fresh fish traded (MT)		Quantity of smoked fish traded (kg)	
		2020	2021	2020	2021
Akwa-Ibom	Catfish	59.36	NA	16.09	NA
	Cray fish	204.03	NA	55.29	NA
	Croaker	102.54	NA	27.79	NA
	Grunters	15.20	NA	4.12	NA
	Sardinella	57.11	NA	15.48	NA
	Tilapia	3.68	NA	1.57	NA
	Snapper	17.9	NA	4.85	NA
	Shiny nose	16.56	NA	7.06	NA
Cross-River	Clarias sp	NA	NA	280	NA
	Heterobranchus sp	NA	NA	181	NA
	<i>Heterotis niloticus</i>	NA	NA	307	NA
	Tilapia sp	NA	NA	1230	NA
	Mugil (Mullet)	NA	NA	68	NA
	Snappers	NA	NA	70	NA
	Silver Catfish	NA	NA	1820	NA
	Snake head	NA	NA	1580	NA
	Sadinella	NA	NA	2118	NA
Momyridae	NA	NA	30	NA	
Delta	Heterobranchus spp	9,870	NA	3,070,500	NA
	Clarias spp	15,051	NA	4,624,800	NA
	Hetero-Clarias	9,223	NA	2,501,740	NA
	Channa obscura	7420	NA	1,622,580	NA
	Nile Perch	3154	NA	393,000	NA
	Citharinus spp	3980	NA	940,000	NA
	Gymnachus spp	3350	NA	9,990,000	NA
	Tilapia spp	5470	NA	1,640,000	NA
Edo	Clarias fingerlings	NA	329,00	NA	369,00
	Feed (kg)	NA	320,775	NA	359,775

Table 13. 4: Pest and Diseases of Fish

Zone/State	Fish spp affected	Pest/disease name	Location of incidence (LGA)	Severity (light, moderate, heavy)	Estimated loss%	Control measure(s) undertaken
North-West						
Zamfara	Clarias Tilapia	Bacterial	Gusau, T/mafara K/Namoda, Bakura	Light	2	Water Management
South South						
Akwa-Ibom	catfish	Snakes/birds	state-wide	Light	5	Netting/sanitation
	Catfish	Swollen belly	-	-	10	Antibiotics/management
Cross-Rivers	Catfish	Saprologniasis	Biase	Heavy	50	Antibiotic
South West						
Oyo	Catfish	Brushed mouth/body	Iddo	Light	2.5	Antibiotic
	Catfish	Swollen Eye	Egbida	Light	1	Antibiotic
	Catfish	White Barbells	Otuyobe	Heavy	5	Antibiotic
	Catfish	Gill rot	Lagetu	Heavy	5	Antibiotic
	Catfish	White spots on the body	Akinyube	Heavy	5	Antibiotic
South East						
Imo	catfish	Fin rot	Owerri north	Light	3	Chemo-therapy
		Gill rot	Owerri west	Light	2	Chemo-therapy
	Tilapia	leeches	Oguta	Light	5	Chemo-therapy
		Fin rot	Olu	Light	3	Chemo-therapy
Ebonyi	Catfish	Saprologniasis	Afikpo	Light	2	Use of Lime
	Tilapia	Gill rot	Afikpo	Light	3	Water management

Table:13. 5. Major Commercial Fish Farms in the States

State	L.G.A	Ownership	Species	Capacity	Actual Production	
					2020	2021
North -West						
Katsina	Katsina	Private	Catfish	3000	4000	5000
	Katsina	-	Tilapia	5000	5500	6500
Kano	Mariri	Private	Catfish	250,000	150,000	250,000
	Sheka-Kumbotso		Catfish	100,000	100,000	120,000
	Sharada Kano Municipal	-	Catfish	150,000	150,000	200,000
Zamfara	Gusau	State	Catfish	10,000	-	10,000
	Kaura namoda		Catfish		1000	1000
North East						
Gombe	Biliri	Private	Catfish	10,000		
	Kaltungo		-	15,000	Na	Na
	Hinna	-	-	10,000	Na	Na
Bauchi	Bauchi	Private	-	6,000	10,000	12,000
		-	-	7,000	11,000	14,000
	-	-	-	6,000	11,500	12,000
	-	-	-	12,500	12,000	15,000
North-Central						
FCT	G/Lada	Private	Clarias	12,000	12,000	12,000
	G/lada			2,000	2,000	2,000
	Bwari			30,000	30,000	30,000
	Bwari			10,000	10,000	10,000
Kwara	Ilorin West	Private	Clarias	120,000	120,000	120,000
	Ilorin South			17,000	17,000	17,000
	Ifelodun			10,000	10,000	10,000
Kogi	Adavi	Private	Catfish	NA	NA	NA
Niger	Bosso	Private	Catfish	5000	5000	5000
North East						
	Yola South	Private	Catfish	-	4,500	4,500

Table:13. 5 (Contd). Major Commercial Fish Farms in the States

South West	L.G.A	Ownership	Species	Capacity	Actual Production	
					2020	2021
Ogun	Abeokuta South	Private	Catfish	100,000	150,000	
	Abeokuta South	-	Catfish	100,000	120,000	
	Ipokia	Group	Catfish	500,000	600,000	
	Ijebu		Catfish			
	Yewa South		catfish			
Oyo	Egbeda	Private	Tilapia	100,000	35,000	20,000
	Ibadan	-	Tilapia/Catfish	250,000	100,000	60,000
	Oluyole	-	Catfish	500,000	150,000	80,000
South East						
Abia	Osisioma			500	3000	10,000
	Abayi		Catfish		2000	7000
	Ikwuano		Catfish	500	3000	6000
	Umuchi-Akuma	Private	Catfish	500	3000	6000
	Isiala-ngwa	Private	Catfish	500	3000	4000
Enugu	Enugu east	Cooperative	Catfish	20,000	40,000	50,000
	Enugu south	Private	Catfish	10,000	10,000	18,000
	Nkanu east	-	Catfish	2,500	25,000	30,000
	Orji-river	-	-	10,000	10,000	NA

Ebonyi	Ikwo	Private	Heterotis spp	2,500	NA	NA
South South						
Akwa-Ibom	Ikot epene	Private	catfish	20,000	10,000	10,000
	Nsit-atai	-	-	10,000	8,000	10,000
	Ibiono	-	-	10,000	7,000	10,000
	Uyo	-	-	4,000	4000	2,500
	Ika	-	-	5,000	5,000	5,000
Rivers	Obio/akpor	Private	Catfish	5,000	5000	4000
	Ahoada west	-	-	5000	5000	5000
Cross River	Calabar South	-	Catfish	10,000	100,000	50,000
	Ogoja	-	-	5,000	50,000	75,000
Edo	Ikphoba	Private	Catfish	Na	Na	Na
Delta	Isoko south	Private	Catfish, Heterotis, Tilapia	NA	10,000	7,000
	Ihiagwa	Private	Catfish	40,000	23,000	23,000
	oguta	Govt.	Catfish	10,000	8500	-
	Orlu	Private	Catfish	20,000	30,000	31,000

Table: 13.6 (Contd): Major Commercial Fish Hatchery in the States

State	L.G.A	Ownership	Species	Capacity	Actual Production	
					2020	2021
North-West						
Kano	Minjibir	Private	Catfish	200,000	150,000	200,000
	Sheka-Kumbotso	Private	Catfish	100,000	100,000	120,000
Katsina	Katsina	Private	Catfish	50,000	50,000	50,000
North East						
Gombe	Dadin-Kowa	State govt	Catfish	NA	NA	NA
Bauchi	Bauchi	Bauchi ADP	Catfish	30,000	20,000	22,000
North-Central						
FCT	Gwagwalada	Private	Clarias and Tilapia	400,000	400,000	400,000
	Kuje,			450,000	100,000	100,000
	Bwari			100,000	450,000	450,000
	AMAC				100,000	100,000
South West						
Ogun	Ewekoro	Private	catfish	200,000	-	-
	Ewekoro	Private	Tilapia	1,000	-	-
	Abk south	Private	Tilapia & catfish			
	Isiwo, Ijebu Ode	Private	catfish	-	-	-
South East						
Imo	Oguta	Govt	Catfish	100,000	-	-
	Owerri west	Private	Catfish	40,000	32,000	32,000
	Izombe	Private	Catfish	20,000	160,000	240,000
Abia	Aba	Private	Catfish		1,500,000	1850,000
South South						
Cross River	Calabar South	Private	Fingerlings	150,000	700,000	900,000
	Bekwarra	Private	Fingerlings	50,000	300,000	500,000
Akwa Ibom	Uyo	Private	Fingerlings	5,000	50,000	20,000
	Abak	Private	Fingerlings	30,000	20,000	30,000
	Ahoadia west	-	-	5,000	5,000	5,000

14.0 ADP EXTENSION ACTIVITIES

14.1 Funding Situation

A critical aspect of agricultural extension delivery is the funding of extension activities. There are a variety of funding arrangements operating in Nigeria, both public and private. There are however limited efforts from communities and farmers' organizations to sustainably support this system over the years. Table 14.1 compared the status of funding for Agricultural Development Projects (ADPs) across states in Nigeria for 2020 and 2021. Generally, funding was dwindling across most state' ADPs. However, an exception was recorded in Ogun ADP which recorded a 124% achievement in funding based on the 2021 target. This was closely followed by Taraba ADP with 100% and Jigawa with about 70% funding achieved. However, in 2021 Edo, Ekiti, Enugu and Akwa Ibom ADPs received less than 5% of targeted funds. Invariably, it could be argued that public funding of state ADPs across Nigeria has not improved in 2021 compared to 2020 production years.

14.2 Performance Indicators of ADPs

The agricultural extension performance indicators assessed in 2021 included farm families, number extension workers, number of visits by village extension agents (VEAs), technology transfer and feedback mechanism, strategies for technology dissemination, status/condition of farmers group development and management, extension agent (EA)-farmer ratio and status of Farmer Field Schools (FFS).

14. 2.1 Number of Farm Families

Farm families are the recipients of agricultural technologies in all farming communities. The higher the number of farm families reached; the more agricultural technologies continue to spread through diffusion in targeted communities. Even though information was not provided by some state ADPs concerning the number of farm families reached (Tables 14.2-7) across all the zones, achievements of over 500,000 farm families was reported by Jigawa, Kebbi, Niger, Lagos, Ebonyi, Akwa Ibom and Delta ADPs in 2021. All other states achieved less than 500,000. farm familys reached in 2021.

Table 14.1: Status of ADP Funding in 2020 and 2021

	2020			2021			% diff.
	Target	Achieved	%	Target	Achieved	%	
North East							
Taraba	-	83,655,987.7	-	83,109,964.50	83,109,964.50	100	100
Gombe	19,900,000	3,000,000	-84.92	249,785,000	185,714,219.24	-25.7	-59.22
Bauchi	36,108,000	-	0	144,000,000	60,000,000	-58.33	-58.33
Yobe	12,000,000	5,500,000	-54.17	12,000,000	8,000,000	-33.33	-20.84
Adamawa	-	2,100,000	-	-	-	-	-
North Central							
FCT	81,956,335	2,250,000	99.73	50,000,000	-	-	-
Niger	0	0	0.00	70,000,000	35,000,000	-50	-50
Plateau				-	-	-	-
Kwara	36,000,000	4,380,432.29	-87.83	16,351,120	5,775,365	-64.7	-23.13
North West							
Katsina	200,000,000	130,000,000	-35	210,000,000	150,000,000	-28.6	6.43
Jigawa	369,600,000	268,385,200	-27.4	425,850,000	727,204,637.6	70.3	42.9
South West							
Ekiti	167,242,625	-	-	129,265,284.02	600,000	-99.56	-
Ogun	711,851,305	301,093,383	-57.70	105,593,781.11	237,449,886.99	124.87	67.17
Lagos	224,000,000	78,000,000	-65.18	222,000,000	90,000,000	-59.46	-5.72
Oyo	535,000,000	0	0	-	-	-	0
Ondo	107,000,000	12,079,000	-88.71	80,000,000	10,330,000	-	- 1.61
Osun	187,382,000	-	-	209,120,000	-	87.1	-
South East							
Abia	12,000,000	7,000,000	-41.67	-	-	-	-41.67
Enugu	30,000,000	0		40,000,000	800,000	-98	-
Anambra	-	-	-	-	-	-	-
Ebonyi	110,000,000	100,000,000	-9.09	-	-	-	-
South South Zone							
Akwa Ibom	22,180,000	1,000,000	-95.49	22,180,000	1,000,000	-95.49	0
Bayelsa	10,000,000	9,000,000	-10.00	-	-	-	-
Edo	125,437,696	16,000,000	-87.24	162,837,752	16,000,000	-99.9	12.8

14.2.2 Number of Extension Workers

Active frontline extension workers involved in agricultural extension delivery in Nigeria include the Subject Matter Specialists (SMSs), Block Extension Supervisors (BESs), Block Extension Agents (BEAs) and the Village Extension Agents (VEAs). All of these extension workers operate in varying capacities and skills. The more SMSs are available, the more effective is the knowledge generation and transfer to extension agents. Similarly, the more the number of extension agents operating at the frontline, the greater number of

farm families reached. Tables 14.2-7 revealed number of VEAs for the state ADPs as follows: Adamawa (100), Bauchi (110), Yobe (127), Kebbi (135), Zamfara (149), Ogun (105), Abia (132) and Delta (133). Kano ADP recorded the highest number of VEAs (1,381) followed by Niger ADP (221). Benue ADP had the lowest number of VEAs (2). It is expected that states with the higher number of VEAs would reach more farmers than those with few number of VEAs.

14.2.3 Village Extension Agents' Farm Visits

The frequency of VEAs visits to farmers is a function of funding, frequency of training, availability of mobility and high number of VEAs. Kano State which recorded over 120,000 visits in 2020 (Table 14.2-7), had only 3 visits in 2021. States that recorded significant progress in extension visits in 2021 were Ogun (60,500), Ebonyi (14,120), Niger (12,830), Abia (11,128), Ekiti (11,136), Gombe (9,135), Rivers (8,221), Akwa Ibom (7,986) and Lagos (7,418). Generally, while some states recorded improvements in extension visits in 2021 over 2020, other states witnessed a decline. This could be associated with the dwindling nature of funding to state ADPs

14.2.4.1 Technology/Knowledge Sharing, Transfer and Feedback Mechanism

The avenues for sharing/transferring knowledge about technologies include the Quarterly Technology Review Meetings (QTRMs), Monthly Technology Review Meetings (MTRMs) and Forth Nightly Trainings (FNTs). All of these avenues enable technology generators (researchers), SMSs and frontline extension agents to interact for the purpose of transferring technologies to farmers. From Table 14.2-7, fifteen (15) states conducted technology transfer meetings/trainings in 2021; majority of which occurred in the South East Zone. It is observed however that there was a decline in the conduct of MTRMs/FNTs activities in 2021 compared to 2020. This may not be unconnected with the declining nature of public funding for agriculture and extension activities.

14.2.5 Technology Dissemination Strategies (OFAR, MTP, SPAT)

Technology dissemination to farmers in Nigeria is demonstrated through On Farm Adaptive Research (OFAR), Management Training Plot (MTP) or the Small Plot Adaptive Technique (SPAT). In 2021, these strategies were reported to have been conducted in Adamawa, Borno, Kano, Kogi, Ekiti, Lagos, Ogun, Anambra, Ebonyi, Akwa Ibom, Bayelsa, Cross Rivers, Delta and Edo States (Table 14.2-7). Despite these achievements in technology dissemination in some states, there was a down turn of activities in some states in 2021.

14.2.6 Farmers' Group Development and Management

A strong strategy for implementing participatory extension methodologies is through effective farmer group development and management. In this regard, Table 15.2-7 also highlighted the level of farmer group/cooperative formation in the States. From 2020 to 2021, some States recorded an increase in the number of farmer groups including Ebonyi (from 7,000 to 15,000), Lagos (from 515 to 610), Niger (from 103 to 108), Cross Rivers (from 455 to 500) and Ondo (from 55 to 67). States with low farmers groups were Kwara (3) and Katsina (15). Taraba had a significant number of 452 farmers groups while Kano State had 100 farmers groups. Generally, in Nigeria, it could be argued that farmers group development was poor in most states, despite some interventions such as the AGRA in Kaduna and Niger States in the previous years.

14.2.7 Extension Agent-Farmer Ratio (EA: Farmer)

The effectiveness of village extension agent (VEA) largely depends on the number of farmers under his/her care traditionally referred to as Extension Agent-Farmer Ratio (EA:Farmer). The lower the ratio, the more effective the quality of extension service delivery. The recommended ratio in Nigeria is 1:800 to 1;1000. To this effect, only Ebonyi State reported an EA: Farmer within this range in 2021. Kano State which had a ratio of 1:900 in 2020 could not present any clear figure in 2021. Based on available information from Table 15.2-7, Ebonyi had a ratio of 1:800, Kwara had 1:1300 and Anambra had 1:1500. Bauchi, Katsina, Ekiti, Lagos, Ogun and Ondo reported some ratios between 1:3000 to 1:4000. Other States reported higher ratios. The results are worrisome as the EA: Farmer continues to decline every year.

14.2.8 Trainings of Farmers

Farmer training is critical to improved farm technology adoption and use and also increase the efficiency of group cooperation activities. In 2021, only Akwa Ibom, Cross Rivers, Edo, Abia, Ekiti, Lagos, Borno and Kebbi States trained farmers at different levels. Adamawa State trained up to 3,500 farmers, Cross Rivers trained 3,180 while Kebbi State trained about 2500 farmers.

14.2.9 Status Farmer Field Schools (FFSs)

Farmer Field School (FFS) “School Without Walls” is a participatory extension approach which encourages farmer centered curriculum development, using the Agro-Ecosystem Analysis (AESA) for establishing learning fields and conducting daily activities through experiential learning with individual farmers. Farmer Field Schools exist for crops, livestock and marketing/entrepreneurship (Farmer Field and Business Schools-FFBSs). The FFS methodology is also adopted in community health, sanitation and nutrition matters (Farmer Field and Life Schools-FFLSs). Eight states (Adamawa, Borno, Kebbi, Ekiti, Lagos, Anambra, Cross Rivers and Edo) reported activities of FFS in 2021. The results showed a decline from 10 state FFS conducted in 2020.

Table 14.2: Extension Activities/Workers in the North East Zone

State	Years	Target/Achievement	№ of Farm Families	SMISs	BES	BEA's/WIA	VEAs	VEAs' Visits	OFARs	SPA Ts	MTPs	MTRMs / OTRMs	FNTs/MTs	№ of Groups /Coops	EA/Farmer Ratio	№ of farmers Trained	№ of farmers field schools
Adama wa	2020	Tar	-	24	46	46	277	96	-	-	-	-	-	-	1:800	-	-
		Ach	-	17	46	46	78	96	-	-	-	-	-	11,008	1:10,000	-	-
	2021	Tar	-	-	46	46	344	12486	-	320	-	12	26	-	1:800	-	-
		Ach	-	-	46	46	100	-	-	320	20	-	-	-	1:8000	3500	61
Bauchi	2020	Tar	-	21	33	32	389	-	-	-	1500	12	24	-	-	-	-
		Ach	-	21	33	32	266	-	-	-	1224	3	0	-	-	-	-
	2021	Tar	8000	21	33	32	266	-	-	-	-	12	24	-	1:800	-	-
		Ach	10,000	15	25	17	110	-	-	-	-	-	-	-	1:3000	-	-
Borno	2020	Tar	2,500,000	7	27	71	300	-	-	-	-	-	-	-	-	-	-
		Ach	1,500,000	7	27	17	48	-	-	-	-	-	-	-	-	-	-
	2021	Tar	-	-	-	-	-	150	50	-	-	15	15	-	-	300	200

		Ach	-	-	-	-	-	120	35	-	-	10	7	-	-	210	170
Gombe	2020	Tar	370,171	8	66	121	404	-	-	-	-	12	24	-	1:800	-	-
		Ach	370,171	5	-	28	75	-	-	-	-	0	0	-	1:3594	-	-
	2021	Tar	436809	8	66	139	463	29376	-	-	-	12	-	-	1:800	-	-
		Ach	436809	4	-	17	55	9135	-	-	-	-	-	-	1:7531	-	-
Yobe	2020	Tar	593,228	13	35	35	222	50	-	30	12	12	12	-	1:1000	-	-
		Ach	300,000	13	12	20	45	30	-	30	5	-	5	-	1:1000	-	-
	2021	Tar	-	18	44	32	400	-	-	-	-	-	-	-	-	-	-
		Ach	-	18	35	10	127	-	-	-	-	-	-	-	-	-	-
Taraba	2020	Tar	288,000	-	30	30	288	-	-	-	40	12	16	-	1:1,000	-	27
		Ach	228,000	-	7	4	50	-	-	-	20	0	16	-	1:5,760	-	80
	2021	Tar	288000	8	16	-	120	-	-	-	-	-	-	1372	1000	-	-
		Ach	288000	4	6	-	37	-	-	-	-	-	-	452	7843	-	-

Ach = Achieved; Tar = Targeted

Table 14.3: Extension Activities/Workers in the North West Zone

State	Years	Target/Achievement	№ of Farm Families	SMSs	BES	BEA's/WIA	VEAs	VEAs' Visits	OFARs	SPATs	MTPs	MTRMs / QTRMs	FNTs/MTs	№ of Groups /Coops	EA/Farmer Ratio	№ of farmers Trained	№ of farmers field schools	
Jigawa	2020	Tar	620,010	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Ach	620,010	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2021	Tar	620010	5	-	-	-	1	-	-	-	-	-	-	-	-	-	-
		Ach	620,010	5	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Kaduna	2020	Tar	2016	28	25	56	131	192	-	-	8000	12/16	24	500	1:1000	200	-	
		Ach	-	28	25	56	131	192	-	-	8000	-	12	75	1,6500	380	-	
	2021	Tar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Ach	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kano	2020	Tar	-	6	170	170	2025	1717248	-	-	-	-	-	-	1:800	11600	-	
		Ach	1620000	6	170	170	1,105	1207073	-	-	-	-	-	-	1:900	7200	-	
	2021	Tar	1350000	8	176	-	1381	3	-	5500	1300	-	-	250	-	-	-	
		Ach	6250	3	176	-	1381	3	-	5500	1300	-	-	100	-	-	-	
Katsina	2020	Tar	1,000,000	32	34	500	1500	-	-	-	-	-	-	-	1:1000	-	-	
		Ach	850,000	8	34	52	84	-	-	-	-	-	-	-	1:10,000	-	-	
	2021	Tar	4000	68	34	60	-	-	-	-	-	-	-	20	1:1000	-	-	
		Ach	3800	12	68	261	-	-	-	-	-	-	-	15	1:4000	-	-	
Kebbi	2020	Tar	525,000	8	30	340	500	20	12	-	-	-	-	-	1:1000	2500	30	
		Ach	525,000	8	30	170	156	15	12	-	-	-	-	-	1:3365	2500	30	
	2021	Tar	525000	8	30	340	500	20	12	-	-	-	-	-	1:1000	2500	30	
		Ach	525000	8	30	170	135	15	12	-	-	-	-	-	1:3,888	2500	30	
Sokoto	2020	Tar	-	5	10	480	30	-	-	-	-	-	-	-	-	-	-	
		Ach	-	4	7	200	10	-	-	-	-	-	-	-	-	-	-	
	2021	Tar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Ach	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Zamfara	2020	Tar	688207	15	40	40	320	NIL	NA	-	-	4	12	596	1:1000	NA	40	
		Ach	207000	8	30	10	139	NIL	NA	-	-	-	11	-	1:4500	NA	-	
	2021	Tar	-	10	40	40	500	-	-	-	-	-	-	-	-	-	-	

		Ach	-	10	30	10	149	-	-	-	-	-	-	-	-	-	-
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Table 14. 4: Extension Activities /Workers in the North Central Zone

State	Years	Target/Achievement	№ of Farm Families	SMSs	BES	BEAs/WIA	VEAs	VEAs' Visits	OFARs	SPATs	MTPs	MTRMs / QTRMs	FNTs/MTs	№ of Groups /Coops	EA/Farmer Ratio	№ of farmers Trained	№ of farmers field schools
Benue	2020	Tar	-	15	46	46	368	196	-	-	-	4	24	-	-	-	-
		Ach	-	11	11	0	43	165	-	-	-	2	6	-	-	-	-
	2021	Tar	-	15	48	48	384	-	-	-	-	-	24	-	-	-	-
		Ach	-	4	4	-	2	-	-	-	-	-	16	-	-	-	-
FCT	2020	Tar	168,000	24	26	26	131	6288	-	-	262	12	-	-	1:800	-	-
		Ach	160,000	12	26	11	70	3144	-	-	-	-	-	-	1:3000	-	-
	2021	Tar	-	24	26	26	131	-	-	-	-	12	-	-	-	-	-
		Ach	-	12	26	11	70	-	-	-	-	-	-	-	-	-	-
Kogi	2020	Tar	-	6	18	24	192	11,904	-	-	4	12	24	-	1:4000	-	-
		Ach	464,000	6	24	4	92	1,400	-	-	3	4	24	-	1:6000	1000	-
	2021	Tar	464000	24	36	36	-	-	-	-	4	12	24	-	1:4000	-	-
		Ach	69600	18	28	36	-	-	-	-	3	-	16	-	1:6000	-	-
Kwara	2020	Tar	400,000	20	64	64	400	-	2	20	-	12	-	16	1:1000	-	-
		Ach	400,000	16	12	12	120	-	2	-	-	-	-	3	1:3000	-	-
	2021	Tar	400000	20	64	64	400	-	-	20	-	12	-	16	1:1000	-	-
		Ach	400000	16	12	8	12	-	-	-	-	1	-	3	1:1300	-	-
Nasarawa	2020	Tar	377,500	18	26	26	153	21816	-	-	50	-	-	-	1;1000	350	-
		Ach	377,500	16	24	24	65	-	-	-	50	-	-	-	1;3886	950	-
	2021	Tar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Ach	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Niger	2020	Tar	-	15	46	46	1000	60,000	-	-	-	12	24	150	1:800	18	-
		Ach	838,463	15	46	30	221	12,830	-	-	-	0	0	103	1:3200	7	-
	2021	Tar	-	15	46	46	1000	60000	-	-	-	12	24	108	1:8000	-	-
		Ach	838461	15	46	30	221	12830	-	-	-	0	-	108	1:32000	-	-
Plateau	2020	Tar	377,500	-	-	-	-	-	-	50	-	-	-	-	-	350	-

	Ach	377,500	-	-	-	-	-	-	150	-	-	-	-	-	950	-
2021	Tar	-	27	57	54	-	-	-	-	-	-	-	-	-	-	-
	Ach	-	25	42	1	-	-	-	-	-	-	-	-	-	-	-

Ach = Achieved; Tar = Targeted

Table 14.5: Extension Activities/Workers in the South West Zone

State	Years	Target/Achievement	№ of Farm Families	SMSS	BES	BEA's/WIA	VEAs	VEA Visits	OFARs	SPATs	MTPs	MTRMs / QTRMs	FNTs/MTs	№ of Groups /Coops	EA/Farmer Ratio	№ of farmers Trained	№ of farmers field schools
Ekiti	2020	Tar	200,000	14	16	16	128	8,400	-	16	16	12	12	96	1:1000	900	90
		Ach	200,000	8	16	7	31	3,654	-	-	-	-	3	38	1:5000	24	24
	2021	Tar	200,000	16	16	16	112	24,576	-	320	256	12	24	100	1:1000	900	90
		Ach	200,000	14	16	15	58	11,136	-	60	124	5	8	72	1:3100	240	24
Lagos	2020	Tar	-	36	16	16	128	12,672	12	15	15	12	26	500	1:1000	250	81
		Ach	558,420	36	16	9	90	6,312	0	0	0	4	18	515	1:6420	15	81
	2021	Tar	-	36	16	16	128	12672	12	15	30	12	26	500	1:1000	250	81
		Ach	558420	36	16	9	90	7418	2	9	17	3	14	610	1:6420	115	81
Ogun	2020	Tar	360,000	20	20	20	126	72,189	-	-	106	12	12	-	1:800	10,500	456
		Ach	-	17	20	20	120	67,680	-	-	25	-	4	-	1:2857	3,500	150
	2021	Tar	360000	20	20	20	126	72189	-	-	105	12	-	-	1:3428	-	-
		Ach	168000	17	18	18	105	60500	-	-	75	3	-	-	1:2293	-	-
Ondo	2020	Tar	180,000	16	36	36	256	-	-	1000	-	12	24	248	1:1000	-	-
		Ach	100,000	8	36	14	80	-	-	100	-	-	-	55	1:3277	-	-
	2021	Tar	180000	16	18	18	256	950	-	-	-	12	24	248	1:725	-	-
		Ach	98000	10	18	11	48	75	-	-	-	-	-	67	1:3050	-	-
Osun	2020	Tar	256,000	9	31	-	248	192	-	-	-	12	26	-	1:2000	-	-
		Ach	256,000	6	20	-	20	192	-	-	-	-	6	-	1:10000	-	-
	2021	Tar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Ach	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oyo	2020	Tar	415,030	-	33	33	264	-	6	-	-	12	26	-	1:800	-	27
		Ach	415,030	-	28	16	44	-	-	-	-	-	-	-	1:5929	-	54

2021	Tar	415,030	40	28	28	224	-	-	-	-	12	26	-	-	-	-
	Ach	415,030	16	28	16	40	-	-	-	-	1	17	-	-	-	-

Ach = Achieved; Tar = Targeted

Table 14.6: Extension Activities/Workers in the South East Zone

State	Years	Target/Achievement	№ of Farm Families	SMSs	BES	BEAs/WIAs	VEAs	VEA Visits	OFARs	SPATs	MTPs	MTRM / QTRMs	ENTs/MTs	№ of Groups / Coops	EA/Farmer Ratio	№ of farmers Trained	№ of farmers field schools
Abia	2020	Tar	1000,000	18	38	-	424	22,256	5	5000	515	12	26	25,000	1:1000	-	0
		Ach	650,240	17	37	-	81	11,128	-	1350	184	2	16	8,000	1:800	-	0
	2021	Tar	650,000	18	38	38	424	22256	5	-	-	12	26	-	-	306	-
		Ach	410345	18	38	38	132	11228	-	-	-	-	14	-	-	170	-
Anambra	2020	Tar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Ach	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2021	Tar	10000	20	20	20	-	5	-	40	2	12	24	200	1:800	-	-
		Ach	4050	20	20	4	-	5	-	20	1	-	24	95	1:1500	-	57
Ebonyi	2020	Tar	1,000,000	15	24	26	300	20,000	-	5,139	515	12	26	25,000	1:1000	-	-
		Ach	650,240	15	24	26	94	14,120	-	1,350	184	-	17	7,000	1:8,723	-	-
	2021	Tar	100,000	15	24	26	-	20000	-	5000	515	12	26	25000	1:1000	-	-
		Ach	700000	15	24	26	-	14120	-	2550	185	1	17	15000	1:8000	-	-
Enugu	2020	Tar	800,000	30	17	17	342	-	-	754	40	12	72	-	1:800	3,500	-
		Ach	242,542	11	6	6	33	-	-	129	6	0	48	-	1:7220	270	-
	2021	Tar	800,000	30	17	17	342	396	-	-	50	-	72	-	1:800	-	-
		Ach	242,542	10	11	4	21	100	-	-	-	-	48	-	1:10,000	-	-
Imo	2020	Tar	303,333	15	30	36	326	-	-	-	-	-	24	900	1:1000	-	-

		Ach	303,333	10	27	20	73	-	-	-	-	-	10	900	1:4530	-	-
	2021	Tar	-	15	38	38	286	286	-	-	-	-	24	-	1:800	-	-
		Ach	-	15	27	0	70	70	-	-	-	-	16	-	1:4333	-	-

Ach = Achieved; Tar = Targeted

Table 14.7: Extension Activities/Workers in the South South Zone

State	Years	Target/Achievement	№ of Farm Families	SMSs	BES	BEAs/WIA	VEAs	VEA Visits	OFARs	SPATs	MTPs	MTRMs / QTRMs	ENTs/MTs	№ of Groups / Coops	E.A./Farmer Ratio	№ of farmers Trained	№ of farmers field schools
Ak/Ibom	2020	Tar	-	30	40	40	274	25,376	-	5,490	244	12	26	1,360	1:2500	1000	-
		Ach	685095	28	40	26	107	2,785	-	2,497	55	-	6	286	1:6,403	200	-
	2021	Tar	689095	30	40	40	274	33600	-	5125	234	12	26	1624	1:2500	500	-
		Ach	685095	28	40	18	66	7986	-	1026	12	-	18	288	1:10,380	160	-
Bayelsa	2020	Tar	10,000	5	32	-	174	2,608	3	296	3	-	24	100	-	1000	28
		Ach	91,840	3	-	-	23	308	1	60	3	-	4	115	-	-	28
	2021	Tar	95497	12	8	32	174	58	-	636	29	12	24	50	1:549	-	-
		Ach	95474	4	-	-	29	-	-	390	-	-	-	50	1:3292	-	-
C/River	2020	Tar	-	15	18	18	144	27648	1	405	148	12	24	405	1:3342	1260	41
		Ach	481506	15	18	18	81	8072	1	481	250	0	8	455	1:5945	1563	69
	2021	Tar	-	15	18	18	144	13632	-	355	-	12	24	1500	1:3343	3180	24
		Ach	481506	15	18	18	71	8221	-	150	-	-	16	500	1:6781	3180	24
Delta	2020	Tar	179,256	12	25	25	200	34,417	8	-	125	12	24	1400	1:1000	-	-

		Ach	179,256	12	25	16	135	825	2	-	-	-	4	-	1:1327	-	-
	2021	Tar	545987	12	25	25	200	-	-	-	25	12	24	-	1:1000	-	-
		Ach	545987	12	25	15	133	-	-	-	3	-	14	-	1:4549	-	-
Edo	2020	Tar	300,000	15	36	36	288	208	-	1600	20	12	26	7,140	1:800	-	-
		Ach	300,000	8	28	3		144	-	567	2	-	10	1,365	1:8200	-	-
	2021	Tar	300,000	9	36	-	288	208	3	1600	20	12	26	7140	1:800	7140	-
		Ach	300,000	7	1	-	-	144	3	567	2	-	10	1,365	1:8000	1,365	-
Rivers	2020	Tar	479,170	-	48	48	55	4,000	-	606	200	12	24	100	1:1000	1,500	81
		Ach	-	-	-	-	-	-	-	-	-	-	-	-	1:8435	160	-
	2021	Ta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Ach	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Ach = Achieved; Tar = Targeted

14.3 List of Technologies under OFAR, MTP, SPAT

On-farm Adaptive Research (OFAR), Management Training Plots (MTPs) and Small Plot Adoption Techniques are the major strategies adopted by the ADPs to disseminate proven technologies to farmers. Technologies disseminated under these strategies are usually aimed at addressing particular field problems. Hence, technologies for dissemination would differ from one state to another. Such technologies include introduction or popularization of new varieties, control of pests and diseases, varietal performance evaluation, across crop, livestock, fisheries and agro-processing etc. Each technology is expected to be replicated in different locations within the state. Relevant inputs for the trials are usually supplied by the extension agency. Over the years, for reason of poor funding and inadequacy of mobility, there has been steady decline in the conduct of these trials across the States. Table 15.8 shows that only few ADPs (Edo, Yobe, Kebbi, Ogun, Delta, Bauchi, Bornu, Katsina, and Enugu) reported the list of technologies conducted under OFAR, MTP and SPAT. The results are not encouraging and poor compared to the 2020 records.

Table 14.8: List of technologies tried under OFAR, MTP and SPAT

Zone/State	OFAR	MTP	SPAT
North East			
Bauchi	Effects of fertilizer on millet (1)	Gawal-01—Rice (24 plots) TGX1448-1-2 Soybean (20 plots) SAMAZ 15 Maize C5R-01 Sorghum (24 plots) SAMNUT 24 (92 plots) SAMPEA 20-PRB (57 plots) NOILER BIRDS (280) Goats (42) Naphier grass (200) Sampea 14 (148-IT99K-573-1-1)	Collaborative trials
Yobe	Samsorg 45 (30) Samsorg 25 (20) Super sosat (20) Jiram (30)	Site selection (60) Seed selection (60) Planting (55) Fertilizer application (45) Insecticide application (35) Harvesting (35) Storage (50) Processing (50)	Site selection (20) Seed selection (25) Planting (30) Fertilizer application (25) Insecticide application (20) Harvesting (50) Storage (40) Processing (3)
Jigawa	NIL	NIL	NIL
North West			
Katsina	Control of striga using indigenous material (5)	NIL	NIL
Kebbi	Demonstration of cowpea pods borer (20) Resistance variety (6) Demonstration of Samsogh 47 variety	NIL	Rice Advice technology (200) Pod-borer cowpea variety (20) Safe use of Agroxcals (35)

	(8)		
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North Central: No data provided				
South East				
Zone/State	OFAR	MTP	SPAT	
Enugu	NIL	Late Planting (5); Plant distance (2)	Swamp Rice (25); Cassava Site (22)	
South West				
Ogun	Post-harvest effects of inorganic fertilizer on yam	Introduction of new cassava varieties (<i>TME419</i> , <i>TMS 98/0505</i> , <i>TMS30572TMS 98/0581</i> , <i>TMS 01/1368(vit. A)</i>) through MTP Establishment (Sole Cassava)		
	Assessment of organic foliar fertilizer on maize			
	Assessment of 3 pre-released varieties of rice			
				Cassava maize orientation, Improve variety, Fertilizer regime and weed control (Intercrop)
				Introduction of new maize varieties through MTP Establishment (Sole Maize), spacing, fertilizer application and weeding
				Production of Seed yam through minisett technique
				Introduction of improved varieties on yam and spacing of yam
				Introduction of new rice varieties (<i>NERICA 8</i> , <i>WITA 4</i> , <i>Faro 44</i> , <i>Faro 52</i> , <i>Ofada</i>), method of planting., fertilizer application and spacing
	Introduction of Pod Borer Resistance Variety of cowpea			
South South				
Delta	Evaluation of Pro vitamin A Cassava variety			
	Evaluation of insecticides in control of Yam beetle			

	Evaluation of the economics of mono-sex culture of <i>Oreochromis niloticus</i>		
	Effect of feeding artificial diet on growth of <i>Oreochromis niloticus</i>		
	Demonstration of protein enriched flour		

Table 14.8 (contd): List of technologies tried under OFAR, MTP and SPAT

Zone/State	OFAR	MTP	SPAT
South South			
Edo	<p>Evaluation of yield and Acceptability of sweet potato varieties grown under three ecological zones.</p> <p>Utilization of concentrate for fattening of small ruminant</p> <p>Demonstration of the economics of mono- sex culture of tilapia (<i>Oreochromis niloticus</i>)</p> <p>Demonstration of the Utilization of 2 varieties of pro-vit A cassava being popularize in Edo State</p>	<p>Cassava Based Crop Mixture</p> <p>Yam Miniset Technology</p> <p>Maize production</p> <p>Soyabean</p> <p>Cowpea</p> <p>Rice production</p>	<p>Yam-Based Crop Mixture</p> <p>Cassava-Based Crop Mixture</p> <p>Yam Miniset Technology</p> <p>Plantain/banana production</p> <p>Pineapple production</p> <p>Soyabean</p> <p>Cowpea</p> <p>Sweet Potato</p> <p>Rice</p> <p>Cocoyam production</p>

14.4 Radio Programmes

The use of radio as a mass medium for the dissemination of agricultural information have been acknowledged as a very virile means of reaching the rural farmers. Agricultural programmes aired on the radio in different states in 2020 and 2021 are shown on Table 14.9. Obviously, there was a decline in the number of agricultural programmes aired on radio across the states in 2021. The reason for this trend, according to data extracted from the ADPs, was poor funding in the face of high cost of airtime. Few states (Katsina, Bauchi, the FCT, Kwara, Ekiti, Ogun, Oyo, Abia, Osun, Enugu) reportedly aired some agricultural programmes in 2021 (Table 14.9).

Table 14.9: Radio Programmes (Agriculture) Aired in 2021

Agro-ecological zone/State	Programmes title	Number proposed		Number achieved		Time aired	Station aired	Programme duration	Language	Cost of airing per annum	Sponsor
		2020	2021	2020	2021						
North West											
Kebbi	Sallama Manoma	60		45							
	IFAD take kira.	60		45							
	NADUKE	60		50							
	Don Manoma	60		50							
Kaduna	Noma Babba	-		-							
	Kasaurara Manoma	104	13	104	Nil	9.45 am	FRCN	15 mins	Hausa	796,000	
	Harama Manoma	-		-							
	Ina Manoma	-		-							
Katsina	Kartane Samuanoma	96	96	96	96	-	State radio	30 mins	Hausa		KTARDA
	Naduke	96	96	96	96	-	GM	20 mins	Hausa		KTARDA
Zamfara	Fillin Zanfara Project	24		22							
Jigawa	Jarda Ja Moran Manoma	104		-							
North East											
Bauchi	Akoma Gona	52	52	52	32	8.30	BRC	30 mins	Hausa	800,000	BSADP
	Noma da Raya Karkara	52	52	32	32	4.30	Albarka	30 mins	Hausa	10404	BSADP
Gombe	Noma Tushen Arziki	52		32							
Yobe	Zauren Manoma	30		38							

Taraba	Take Kira	NA		4							
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Agro-zone/State	Programmes title	Number proposed		Number achieved		Time aired	Station aired	Programme duration	Language	Cost of airing per annum	Sponsor
		2020	2021	2020	2021						
North Central											
Kogi	Farmers forum	5 2		NA							
FCT	Agric School Green Land	24	24	6	Nil	7.00pm	Kapital FM	15 mins	English	Collaboration with Kapital FM	Kapital FM
Kwara	MAIZE PROG.	1	1	1	1		99.1FM	45 MINS	English & Yoruba	45,000	KWSG
	RICE PROG.	1	1	1	1		99.1FM	45 MINS	English & Yoruba	45,000	KWSG
	COWPEA PROG.	1	1	1	1		99.1FM	45 MINS	English & Yoruba	45,000	KWSG
South West											
Lagos	-	52		27							
	-	10		10							
Ekiti	Agbeloba	320	288	196	192	5.45 am	BSES	10 mins	Yoruba	1 million	State Govt
Osun	Aye Agba	52	-	52	-		OSBC		Yoruba	1.6 million	
	Vaccination of animals	3	-	3	-	3 SLOTS	OSBC	3	Yoruba	9,000	Ministry of Agric
	Distribution of Cocoa seedlings	-	6	-	6	6 slots	OSBC	6	Yoruba	20,000	Ministry of Agric
Ondo	Kaje-Kayo	-		-							
Ogun	Agbe-Afokosoro	52	33	52	52	8.30 am	OGBC	15 mins	Yoruba	546,000	Govt
	New Iroyin	5	5	3	2	Evening	OGBC, Root FM, Fresh, Rock city	2 mins	English & Yoruba		Min of Agric
Oyo	Agbe afokosoro	52		33							
	K'ebi ma pa'lu	13		10							
	Ise Agbe	52		NA							

Zone/State	Programmes title	Number proposed		Number achieved		Time aired	Station aired	Programme duration	Language	Cost of airing per annum	Sponsor
		2020	2021	2020	2021						
South East											
Abia	Amnesty programme Fall armyworm JICA Japan	1 2 4		NA NA 2							
Anambra	Training and sensitization programme against indiscriminate use of Agro chemicals in production. Postharvest handling and storage of Agricultural commodities for farmers and Traders.	01		24	Nil						
Enugu	Kahamalu	48	48	15	26	1:30-3pm	FRCN	1 hr 30mins	Igbo	960,000	MOA
		48	48	10	28	6:30-7pm	ESBS	30 mins	English	720,000	MOA
		36	48	10	28	5-6pm	Dream FM	1 hr	Igbo	540,000	MOA

	Sensitization on effective use of the one stop Agric center. Training on correct planting of Cassava value chain.	4 24		4 24							
	Empowerment of women and youths through distribution of poultry pens, feeders & drinkers, Docs and feeds	24		24							

Zone/State	Programmes title	Number proposed		Number achieved		Time aired	Station aired	Programme duration	Language	Cost of airing per annum	Sponsor
		2020	2021	2020	2021						
South South											
CROSS RIVER	New farming season. Fish pond construction. (Talk show)	52		52							
AKWA IBOM	Radio farmer	-		-							
BAYELSA	-Agric hour on importance of diversification/farmers to remain focus.	4 4		2 2							

EDO	Farming Hints	52	12	33	2	Friday 6.30pm	EBS	30mins	Pigin English	600,000	Edo ADP
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14.4 TV Programmes

Television offers a great avenue for disseminating (audio and video) agricultural information to farmers. Such programmes are meant to create awareness and showcase successes in agricultural technology adoption. The basic aim is to enhance technology adoption through improved knowledge and skills of farmers so as to improve their productivity. Table 14.10 provides information on such agricultural programmes aired in different States in 2021. Only few states (Katsina, Zamfara, FCT, Kwara, Ekiti, Enugu and Edo) provided information on agricultural programmes televised in 2021. There was a decline in the number of such programmes by the ADPs compared to the 2020 records.

Table 14.10: Television programmes aired in different States in 2021

North West											
State	Programmes Title	No. Proposed		No. achieved		Time of Aired	Station Aired	Programme Duration	Language	Cost of Airing per annum	Sponsor
		2020	2021	2020	2021						
Katsina	Naduke	96	96	96	96		KTT V	30 mins	Hausa		KTRDA
Zamfara	Noma Tushen Arziki	52	52	52	32	7pm	BATV	30 mins	Hausa	800,000	BSADP

North East											
State	Programmes	No. Proposed		No. achieved		Station Aired	Programme duration	Cost of Airing per annum	Sponsor		
		2020	2021	2020	2021						
Bauchi	Akoma Gona	52		32							
	Noma Tushen Arziki	52		32							
Yobe	Mukoma Gona	6		3							

NORTH CENTRAL											
State	Programmes	No. Proposed		No. achieved		Time of Airing	Station Aired	Programme duration	Language	Cost of Airing per annum	Sponsor
		2020	2021	2020	2021						
Kogi	Farmers forum Back to land	52 13		NA NA							
FCT	Agric Scope	24	24	6	Nil	7:00pm	Kapital FM	15mins	English	Collaboration Kapital FM	Kapital FM
Kwara	AGBELOBA	2	12	1	-		NTA Ilorin	25 mins	English & Yoruba	540,000	KWS
	Rice Prog.	1		16							
	Cowpea Prog.	1		16							

SOUTH WEST											
State	Programmes	No. Proposed		No. achieved		Time of airing	Station Aired	Programme duration	Language	Cost of Airing per annum	Sponsor
		2020	2021	2020	2021						
Ekiti	Lahere	52	48	30	32	5.30 pm	BSES	30 mins	Yoruba	1.2 million	State Govt
Osun	Aye Agba	12		NA							
Ondo	Obalagbe	10		-							
Ogun	Agbelere	52	52	33	52	3.30 PM	OGTV	30 mins	Yoruba	2,613,000	Govt
Oyo	Agbeloba	52		NA							

South East											
State	Programmes	No. Pr		No. achieved		Time of airing	Station Aired	Programme duration	Language	Airing cost/ annum	Sponsor

		2020	2021	2020	2021						
Enugu	Agric half hour	24	24	4	16	6-6:30	NTA	30mins	English	720,000	MOA
	Farmers' forum	24	24	6	12	5-6pm	ESBS	1 hr	English	360,000	MOA
Abia	Fall Army worm SASAKAWA Jica Japan	NA - -		NA NA NA NA							
	3.	24		24							
South South											
State	Programmes	No. Pr		No. achieved		Time of airing	Station Aired	Programme duration	Language	Cost of Airing per annum	Sponsor
		2020	2021	2020	2021						
Cross-River	Good morning Cross River	12		2							
Bayelsa	Agric Home discuss.	2		1							
	Proper use of Agro Chemicals	2		1							
Edo	Farming Hints	52	12	33	2	Friday 6.30pm	EBS	30mins	Pidgin English	600,000	Edo ADP

14.3.1 Problems affecting the effective performance of ADPs in Nigeria

The ADPs remain one of the most successful agricultural initiatives that have critically shaped agricultural development in Nigeria. With enduring effective structure, it remains the most important public platform for extension activities in the country. Over the years, the ADPs could no longer carry out their extension duties for which they were set up for since the withdrawal of the World Bank funding in the 90s. The Agricultural Development Programmes (ADPs) in Nigeria are the extension arms of state Ministries of Agriculture; they were established to provide adequate technology for boosting food production by farmers. The absence of sustainable funding for extension services has made it impossible for ADPs to implement planned programmes. Since the withdrawal of World Bank counterpart fund, state governments have been the major source of fund for the ADPs. The sliding performance of the ADPs is a result of the dwindling funding situation. Other problems affecting the efficient performance of the ADPs across the States in Nigeria are shown in Table 14.11. The key constraint to extension services reported by the majority of State ADPs was poor funding. Fund allocation from state governments was grossly inadequate and often disbursed late. Inadequate/shortage of manpower (extension staff) also was reported by the majority of State ADPs as another major problem affecting their performances.

Table 14.11: Problems affecting the performance of ADPs in Nigeria

Nature of problem	States Affected
Inadequate/shortage of manpower (extension staff)	Katsina, Abia, Bauchi, FCT, Delta, Edo, Jigawa, Ogun
Lack of extension kits	Bauchi, Yobe
Lack of mobility	Bauchi, FCT, Edo, Kwara, Abia, Sokoto, Ogun
Inadequate capacity building	Bauchi, Delta, Sokoto, Ogun
Collapse of infrastructure	Bauchi, Enugu
Inadequate vehicles and working materials	Bauchi, Edo, Abia
Insufficient fund	FCT, Anambra, Delta, Edo, Kwara, Abia, Bornu, Ekiti, Jigawa, Kaduna, Ogun, Sokoto
Scarcity of farm inputs	Edo, Kwara, Delta
Insecurity	Borno, Enugu
Weakening of the ADP system as a result of the establishment of coordinating offices for projects that ADP can successfully handle i.e. FADAMA, APPEALS, Value Chain Development Projects etc	Kwara

Source: NAERLS, Agricultural Performance Survey, 2021

14.3.4 NGOs Participation in Extension Activities

The information presented on Table (14.12) shows the NGOs participating in extension service delivery across the six geo-political zones in Nigeria. All the state ADPs with exception of Osun (SW), Kaduna and Kano (NW), Ebonyi, Abia and Imo (SE) and Plateau states (NC) provided information on the activities of NGOs in their respective states. The various NGOs collaborated with the state ADPs in the areas of extension support; livestock; crop production livelihood project; health and nutrition; value chain; etc. The major NGOs identified were OXFAM, AGRA, IITA, PROSEL, PULA, BATN, DANGOTE, SHEP, SASAKAWA, GIZ, SG2000, ICRISAT, IFAD-CASP, TRIMING, SG AFRICA, N-POWER PROJECT, LAPO and CARITA etc.

Table 14.12: NGOs Participating in Extension Service Delivery

North East Zone			
State	NGO	Activities	Estimated farm families reached
Bauchi	Ox Farm	Processing	17352
	MEDA	Soil Teat	
	OCP Africa		
	SG Africa		
	IITA	Improved seed	
	ICRISAT	Improved Seed	
Borno	UNDP	Livelihood	36 States
	F.A.O	Promoting or Boosting Agric Sector	North East
	G.I.Z	Radio Extension	North East
Adamawa	UNDP-GEF	Agricultural production	35000
	UNDP		300
	FAO		85,000
	OXFAM		45000
	GIZ		1200
	RRA		25000
Gombe	SG2000	Extension Services	500
	UNDP	Livelihood	1200
	TRIMING	Irrigation	480
	MERCY	Extension Services	1400
Yobe	N-POWER PROJECT	Enumeration of farmer's BVN, data etc	17 LGAs (2,580)

North West Zone			
Kebbi	OXFAM	Use of EAs in their activities	Kebbi State
Jigawa	IFAD-CASP	Integrated soil fertility management(compost)making Agroforestry fertilizer concept	5897
Zamfara	FEWS.NET	Sign detecting of famine	
	World food program	IDP food aid	
	AGRA	Input assistant	

North-Central Zone			
Kogi	Action Aid		300
		Extension	180
	DDS	Crop product	48
	PIB CID		300
	SWL/ SE 2000	Extension	400
Benue	GIZ	Trainings	54720
	SASAKAWA	Trainings	1000
Niger	IITA/RMRD	Technology trial of sugar beek production Mayakata	
	AGRA	Baby plot ZMC	
Kwara	Action Aid	Training of women farmers	600
Nasarawa	AGRA YMCA	Transfer of technology Private extension delivery	
Taraba	Prosell	Extension Services	8 LGAs
	Pula Advisors	Innovative agricultural insurgence	16 LGAs
	SHEP	SHEP (Empowerment)	2 LGA

South West Zone	NGO	Activities	Estimated farm families reached
Ondo	St peters catholic church Akure	Training of extension agents and farmers.	
	2 scale	Training of farmers on plantain value chain	
Lagos	BATN foundation	Lekki and Ibadan	Product Improvement and its state wide

			coverage
	Dangote	44/46 Olanrewaju	Product Improvement and its state wide coverage
	ALLA Aqua		Product Improvement and its state wide coverage
	IITA		Product Improvement and its state wide coverage
Ogun	JDPM	Extension Services	
	Sasakawa	Extension Services	2,000
	JDPC	Extension Services	
	GIZ	Cassava Value Chain	13,000

South East Zone			
Anambra	Harvest plus	Cassava/fertilizer input supply	
Enugu	N-Power Project	Extension activities.	3,789

South South Zone			
State	NGO	Activities Performed	Farm families reached
Rivers	-Agricultural entrepreneurs Association of Nigeria.	Agricultural support, advisory & consultancy	2725
	-Inst. Of export operation and mgt	Training in agric extension, delivery services	2612
Cross River	SG2000	Training of farmers	2700
	GIZ	Training of farmers	
	HARVEST PLUS/GHAIN USAID-WATIH-COVID	Training of farmers Trainings on GAP	1007
Akwa-Ibom	Domita Farms	-Crops, L/S, Fisheries	98
	Vika Farms	-Integrated	47
	Isobara Farms	-Crops	21
	Edet Farms	-Processing	18
	CnC Compost Serv. Ltd	-Crops	40
Delta	USAID-MARKET II	Training and empowerment Training of youth on fish farming	South – South states

Edo	LAPO GIZ IDRC Caritas	Credit and extension support to farmers Training of farmers Training of trainers Training of Youth	State –wide State –wide State –wide State –wide
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14.5 Trainings Needs

Table 14:13 shows the various training needs of the state ADPs across the zones. The subject matter where training needs were actually identified were crop production, livestock/fisheries, pest and disease management, irrigation horticulture, record keepings, soil and water conservation, ICT, data analysis, modern rural extension techniques, capacity building and gender development and empowerment, the use of GIS, agric shows facilitation, monitoring and evaluation and the configuration of ODK for data collection analysis. The category of personnel requiring these trainings included VEAs, M&E staff, Farmers, Extension staff, RD staff, ICT staff, Research personnel, BES, VEW, WIA, SMS, Planning and Statistical Officers, Enumerators, Technical staffs, BEA, house wives.

Table 14.13. Training Needs of ADPs			
STATE	SUBJECT MATTER	CATEGORY OF PERSONEL	2021
NORTH WEST ZONE			
ZAMFARA	Date farm production,	BES/VEW	250
	Erosion and contour farming, Poultry production, and	VEW	200
	Cereal Production	WIA	50
	Legumes crop production	BES/VEW	140
		BES/VEW/WIA	200
Herbicide and Pesticides and their uses	BES/VEW/WIA	220	
		VEW	120
KATSINA	Handling of pesticides	Farmers	361
	Compost making	Farmers	361
	Recycling of waste	Farmers	361
KEBBI	Crop production	EAs	60
	Pest and disease management	EAs	60
	Livestock production	EAs	40
	Fisheries	EAs	40
	Soil and water conservation	EAs	50
	Computer	Enumerators	25
KANO	Good nomadic practices	EAs	1000
	Safety handling of chemicals	EAs	1000
	Sprayer Calibration	EAs	1000
	Field Measurement	EAs	1000
	Feed formulation on ruminants	EAs	1000
	GPS download application	EAs	1000
	Capacity building of groups	EAs	1000
	Data collection exercise	Enumerators	30
	Data analysis	Planning and statistical officers	5
	Modern rural extension techniques	Extension officers	10

	Modern storage techniques	Produce officer	5
	Information dissemination	ICT staff	5
SOKOTO	Capacity building	All staff	200
JIGAWA	Provision of qualitative training	Enumerators	32
	Storage, processing and marketing	Extension staff	All
	Innovative research	Research personnel	All
NORTH EAST ZONE			
BAUCHI	Capacity Building	Extension officers	480
		Technical Staff	
		Executive Officers	
		M AND E Staff	
BORNO	Area of Agric. Extension	Agric. Extension Personnel	50 – 70
	Radio Extension Programme	Agric Extension Personnel	5 – 10
	Agric shows	Agric. Extension Personnel	40 – 70
	Post Harvest Management	Agric. Extension Personnel	40 – 70
	Pesticides Application	Agric. Extension Personnel	40 – 70
	FFS Facilitators	Extension Agents	20
	FFS Master Trainers	BES	10
	Enumerators (APS)	Enumerators	30
YOBE	Good agronomic practices	EAs/Farmers	3000
	Pod borer resistant cowpea	„	2000
	Small ruminant production /management	„	4000
	Fish production and disease control	„	2500
	Postharvest handling of crops	„	1000
GOMBE	Configuration of ODK	Enumerators	5
	Information Technology	EAs	30
	Record Keeping	Farmers	150
NORTH CENTRAL ZONE			
KWARA	Training on handling of post-harvest losses	All extension agents	300
	Training on proper maintenance of tools and machineries	All extension agents	300
	Training on effective dissemination of proper extension messages	All extension agents	300
KOGI	Pre-season training	SMS, BES, BEA, EAS	60

	Post season training	SMS, BES, BEA, EAS	60
NIGER	Preservation of foods and vegetables	Housewives, C50	30
	Integrated pest management	BES	100
FCT	Pre-season training	Extension Staff	130
	FNT	”	30
	MTRM	”	20
SOUTH WEST ZONE			
Ondo	Good agricultural practices in crop production	Extension agents	80
	Modern comm. Skills in extension	Extension agents	80
	Training on management skills	Director/Directors	10
	Monitoring & evaluation training	M&E Staffs	15
	Training on agric business	Extension agents	80
	Training on ICT & reporting	Planning officers	5
Oyo	Social protection and empowerment	Both senior & junior staff	100
	Nutrition sensitive as a tool to combat diseases and infection.	” ”	200
Lagos	Fortnightly training	Extension officer	90
	Extension communication	Extension officer	16
	Advance management courses	Head extension, HFA, WIA	3
	Extension on interactive voice system	Extension officer	30
	Methodologies and selected agric value chain		
Ogun	Data gathering and analysis	Senior and management staff	150
	Monitoring and Evaluation	Senior and management staff	200
	Feasibility/ Business plan/ Report writing	Senior and management staff	150
	Crisis resolution/Land resource management	Senior and management staff	70
	Project/personnel management	Senior and management staff	250
	Report writing	Senior and management staff	200
	Use of GIS	Senior and management staff	170
	Climate smart agriculture	Senior and management staff	250
Ekiti	Scientific reporting/ICT	Subject Matter Specialists	15
	Good Agricultural Practices	Extension Agents and Extension Officers	30
	Agricultural Business	Planning Officers and	10

	Planning and Implementation Management	Enumerators	
	Management of Extension and Advisory Services	Extension Offices and Extension Agents	20
	Report and Memo Writing	Administrative Officers	5
	Gender Development and Empowerment	Women-In-Agriculture	10
	Feasibility study and proposal writing in agricultural business management	Planning, Monitoring and Evaluation Officers	5
SOUTH EAST ZONE			
Imo	Appreciation of ICTs	Every staff	50 staffs from different field
	Training on use of social media in Agriculture and extension services	AEOs	”
	Trainings in different aspects of agriculture	Experts	”
	Fisheries, food production, poultry and piggery	”	”
	Use of ICTs in data management	”	”
	Use of modern equipment	”	”
	Use of herbicides	EAs	
Enugu	FNTs, BM for Village Extension Agents	EAs	22
	TOT for the SMS on various subject matters	SMS	10
Abia	For excellent communication and inter personal skill	From grade level 08 to 14	2 per time
	Organization and time management skills	12 - 15	2 -3 persons per time
	Climate smart agriculture	All EAs	170
	Value chain development	Ass ADP staff	170
Anambra	Appreciation of ICTs	Every Staff	50
	Training on use of social media in Agric/ Extension	EOs	50
	Trainings in different aspects of Agriculture		
	Fishery, food production, poultry and piggery	Experts in that field	50
	Use of ICTs in data management	Enumerators	
	Use of modern equipment		
	Use of herbicide	EAs	50
Ebonyi	Modern Agricultural practices	GL8 - 14	110 - 200

	Fund Management	GL8 - 16	110 - 150
	Record Keeping	GL8 - 10	120 - 300
	Research in Agricultural practices	GL8 - 16	50 - 100
SOUTH SOUTH ZONES			
Cross Rivers	Statisticians/data officers	Planning Research/Statisticians	10
	Agric Extension Officers	AEO	60
	Veterinary Staff	VET. Officers	60
	Livestock Staff	Livestock Staff	60
	Fisheries Staff	Fisheries Staff	60
	Food and Nutrition staff	Food and Nutrition Staff	10
	Tree Crop Staff		60
Akwa-Ibom	Mushroom Production	EAs, BEAs, BESs, SMSs	60, 18, 40 28
	Greenhouse Vegetable Production	-do-	-do-
	Artificial Insemination	-do-	-do-
	Fish (egg) Hatching	-do-	-do-
BAYELSA	MTRM	PM, DIRECTORS, SMS, ZMSs and AEOs	
	MT	EAs, DES, DDES, ZMSs, AEOs, BEAs, BES.	
	PRESEASONAL TRAINING	EAs, SMS and BEA	
Edo	Agricultural production survey training	Enumerators	36
	Policy dialogue engagement in extension service delivery	SMS,BES	
	Management of Beetle	SMS,BES	50
	Infestation in yam production	SMS,BES	32
	Cadre Harmonise framework of food and nutrition	SMS,BES	2
	TOT of good agronomic practices on cassava production	BES and EAs	10
	Workshop on effective extension delivery services in Nigeria	Director of Extension	1
	Cassava-Based workshop	Extension Officer	1
	Seminar on bee keeping	Extension Officers	3
	Seminar on poultry production	Extension Officer	1
	Refresher TOT for FBS trainers and supervisors	MIS Officer	1
	Cat fish production	Famers	47
	Industrial training on Agric production	SMS	15
	Training of Trainers on Cat fish production/processing	EAs, CPO and I.T students	15

	Hatching of clarias fingerlings	Technical Staff	46
	Fishery & pig production	Technical Staff	15
	Crop product & Animal Husbandry	Technical Staff	20
	Snail Production	Technical Staff	36
	Cassava stem multiplication	Technical Staff	20
	Weather Report Training	Enumerators	36
	Market survey Training	Enumerators	36
	Audio-visual media production Tech for Agric& Rural Development	CCO/Cameraman	2
	Computer Network & Internet connectivity	MIS	2
	Budget preparation skills	Director of planning Monitoring & Eval/MIS	3
	Monitoring & Evaluation in Agric Business	Evaluation officer	3
	Mainstreaming gender & the invulnerable groups into Developmental programmes	Head women in Agriculture	

14.6 Problem Needing Research in the Nigerian Agricultural Sector

Table 14.14 shows identified challenges which required research and development interventions in the agricultural sector across the six zones in 2021. The priority areas indicated on the table show army worm control, good agronomic practices, postharvest loss technology, improve storage system, herbicidal application, chemical residue after fertilizer application, provision of improve varieties, climate smart agriculture, pest control, etc. in crop production. For research needs on horticultural crops the following areas were identified: Research on new breeds of flower and method of controlling their diseases, pest and disease of mango, guava & citrus, short duration for production, aphid control in pepper, improve varieties in onion/okra, postharvest operations in tomatoes, preservation of perishable crops technology, sigatoka in plantain/banana, new varieties of trees, perennial vine fruits/vegetables etc. For livestock, there were identified research areas in breeding stocks that are resistant to CBPP/CCPP, breeds selection, feed formulation, improve animal production technology and disease control, research on chemical residues in hay, enhancement of livestock development, development and production of grazing land, revitalization of existing livestock improvement and breeding centres, research on fattening, animal traction, diary production, research need on organic drugs e.g antibiotics and other curative drugs for livestock, sudden death in broilers, utilization of locally made simple incubator for hatching eggs in poultry production. On fisheries, the areas for research were research on fresh water fisheries, research on modern technology for fish production, research on contaminants in feed mills, revitalization of existing fish pond and fingerlings, research on fish seeds and modern fish hatchery and fisheries laboratory for disease diagnosis. All areas needing research in fisheries, agroforestry, WIA etc. are presented in Table 14.14

Table 14.14: Problems requiring research in the development of the Agricultural sector

NORTH WEST ZONE		
States	Problem	Identified Areas for Research
Zamfara	Crop	Fall Army worm control in maize
	Horticulture	Tuta absoluta control in Tomato
	Livestock's	Breeding stocks that are resistant to CBPP/CCPP
	Fisheries	Fresh water fisheries
	Agro-Forestry	Adaptability of palm oil in the state
	Irrigation	High yielding variety of wheat such as Iman & Norman
	Agricultural Mechanization	Adaptability of mini tractors with less fuel consumption to replace work bull
	Extension Services	Efficient extension approach with respect to shortage extension agent.
Women in Agriculture	Mini Rice processing/Milling plant for small scale (women) Rice millers. Possibility of down stepping fabrication technique by NCAM to local blacksmith for fabrication simple farm machineries.	
Katsina	Crops	Fertility test in the soil for low outcome in some root crops such as cocoyam. Good agricultural practices
	Horticulture	Good agricultural practices/IPM
	Livestock	Breeds selection Management Feed formulation
	Fisheries	Breeds selection Management Feed formulation
	Agro-Forestry	Methods/Disease control
	Irrigation	Dam dredging, Drought Resistant crops
	Agricultural mechanization	Fabrication of simple tools for easy usage
	Extension Services	Extension delivery System
	Women in Agriculture (WIA)	Women in Agricultural value chain/Value addition
Kebbi	Crops	Postharvest loss technology Improve storage system
	Horticulture	New breed of vegetables and flowers Training on production technology Training on pest and diseases Good Agricultural practices/IPM
	Livestock	Improve animal production technology and disease control Feed formulation.
	Irrigation	Soil and water management establishment of drainage/canals in the irrigation scheme
	Agricultural Mechanization	Fabrication of simple tools for easy usage
	Extension services	Extension delivery System
Kaduna	Fisheries	Modern technology for fish production
	Agro forestry	Chemical residues
	Women in agriculture	Women involvement in Agricultural value chain/Value addition

Kano	Crops	Chemical residues after fertilizer application, herbicidal application and storage application
	Horticultural crops	Chemical residues
	Livestock	Chemical residues in hay
	Fishery	Contaminants in feed mills
	Irrigation	Water use efficiency
	Extension Services	Improvement on capacity building
Jigawa	Crops	Improved agronomic practice which will invariably become reflected in increase production per unit area
	Horticulture	Professionals need to be involved in the field of horticulture to supervise the program
	Livestock	Enhancement of livestock development Development and production of grazing land Revitalization of existing livestock improvement and breeding centres
	Fisheries	Revitalization of existing fish pond and fingerlings
	Agro-Forestry	Adaptation of best practices especially regarding environmental protection in term of afforestation
	Irrigation	Provision of proper channel and drainage for irrigated farms
	Agricultural Mechanization	Provision of increase farm energy i.e tractors, work bulls etc
	Extension Service	Improving research on extension services and their logistics
	Women in Agriculture	Improving women farmer groups in our rural areas
Sokoto	Crops	Provision of improve varieties of various crop released by research institutes
	Horticultural crops	Availability of improved seeds that are highly resistance to pest and diseases
	Livestock	Improved breeding of animal for quality breeds i.e cross breeding with indigenous breeds
	Extension Services	Training and retraining
	Women in agriculture (WIA)	Training and retraining Funding Recruitment

NORTH EAST ZONE

States	Problem	Identified Areas for Research
Adamawa	Crops	Climate Smart agriculture Pest control, Aflasate application Micro-dozing of fertilizer
	Horticultural Crop	Nursery Management
	Livestock	Feed production Improve breeds
	Fisheries	Fish ponds construction Raising of fingerlings Hatchery

	Agro-forestry	Economic trees, Mix-farming sustainable agriculture, hedges, plantation And management of tree crops
	Irrigation	Water harvesting Irrigation facilities
	Agricultural Mechanization	Planting, land preparation, harvesting machines, Fabrication of simple machines
	Extension Services	Fort nightly trainings Capacity building in GAPs In-service trainings for EAs
	Women in Agriculture (WIA)	Capacity building on postharvest management Preservation and processing along value chain
Gombe	Crops	More Research on crops like Maize, Sorghum and Rice
	Horticultural Crops	Mango and Citrus
	Livestock	Livestock Feeds Sheep/Goats Diary animals (Cows)
	Fisheries	Improved Fingerlings Local Feeds
	Agro-Forestry	Medicinal Aspects of Trees Local Manufactured Insecticides
	Irrigation	Drip Irrigation Locally Made
	Agricultural mechanization	The use of donkeys for ploughing
	Extension Service	Improved and modern extension machinery
	Women in Agriculture (WIA)	Locally manufactured stoves for bio fuels
Bauchi	Crops	New improved crops varieties e.g. cereals: - rice/maize; Legumes: - cowpea, soybeans, G/nut
		New varieties and pest control methods
		Methods of processing and storage crops like Vegetables (Tomatoes)
	Livestock	Fattening, Animal traction, Diary production,
		Artificial insemination Laboratory for disease diagnosis and vaccine Different breed of animals for identification during research
		Fish seeds and modern fish hatchery Fisheries laboratory for disease diagnosis
	Fisheries	
		Water pumping machines Water quality assessment Land development
	Irrigation	
	Agricultural mechanization	Improve planters, modern equipment/processing machine
Extension Services	Linkages between the extension services providers and research institutes Modern technology on food nutrition, Improve food storage	
Women in agriculture	Sanitation and health technique to farmers	
Borno	Extension services	Insecurity which is the major concern for over a decade Funding was also mentioned as a major problem of extension service delivery.
	Others (specify)	Seed varieties, Herbicide, Fertilizers, insecticide and storage facilities
Yobe	Crops	Disease that reduces sesame yield in the field
	Horticultures	Onion effective method of preservation

Fisheries	Fisheries, diseases management and Marketing
Extension services	Digital method of extension dissemination.
Women in agriculture (WIA)	Good nutrition methods to children

NORTH-CENTRAL ZONE		
States	Problem	Identified Areas for Research
Kwara	Crops	How to curb the problem of army worms on maize crops How to prevents cassava mosaic on the field Cowpea yield
	Horticulture	Effective use of organic fertilizers on tree crop plants
	Livestock	Feed and nutrition for livestock animals Organic drugs e.g antibiotics and other curative drugs for livestock
	Fisheries	Ways in fish preservation. Improve on disease resistance in cultured fish species.
	Agro-Forestry	Tree crops e.g cashew, cocoa, mango value chain development.
	Irrigation	Exploitation of underground water for irrigation through drilling
	Agricultural Mechanization	Machineries for preserving and storage of farm produce such vegetables
	Extension Services	Production of fall army worm maize resistant seeds varieties
Kogi	Crops	Pest/disease resistance varieties of crops like maize, cowpea and rice Improved agricultural practices Training and retraining of subject matter
	Horticulture	Value chain Improve varieties Expansion of the crops
	Livestock	Breeds and Sources Effect of livestock disease on human
	Fisheries	Business plan Fish multiplication Hatching process
	Agro-forestry	Maintenance Expansion/Afforestation
	Irrigation	Development and Handling of irrigation equipment
	Agricultural Mechanization	Maintenance of farm machineries
	Extension Service	Function of extension services in agricultural value chain Extension Services as the major channel of communication Establishment of innovation platform
	Women in Agriculture (WIA)	Importance of women involvement in agriculture Place of women in agricultural value chain
	Livestock	Livestock feed
	Fisheries	Fish feed
	Irrigation	Modern Irrigation equipment
	Agricultural mechanization	Focusing on harvesting devices

	Extension services	Operational equipment
Nasarawa	Extension Services	There is need to conduct research on crop good Agric practices before advising farmers to adopt
Taraba	Crops	Marketing strategies to help farmers overcome glut during harvest
	Horticulures	Processing facilities/infrastructure to curtail colossal loss resulting from damage/perishing of crops
	Livestock	Evolving measures that will facilitate adoption of Ranching to curtail farmers-Herders clashes
	Agricultural Mechanization	Simple machine/devices for harvest of some crops to reduce damages at harvest period
	Extension services	Funding mechanism for extension services delivery/sustainability
FCT	Crops	Release of more crop varieties that are tolerant or resistant to pest and diseases Recommended standard for seed rate Crop spacing and methods of fertilizer application
	Livestock	Reduction in the cost of livestock feed Upgrading local poultry for farmers
	Extension Services	More capacity building on staff on new research technology Extension agents needs training on the use of ICT
SOUTH WEST ZONE		
States	Problem	Identified Areas for Research
Ondo	Crops	Extension working tools Insufficient staff
	Horticultural crop	Inadequate indigenous tree production
	Livestock	The use of non-conventional feed ingredients in manufacturing of livestock feed to reduce cost of production. e.g. use of cassava peels, maize cob to substitute maize grain in feed production
	Fisheries	Fish fry mortality Low cost of feed Appropriate processing method for fish
	Agro-forestry	Land management development
	Irrigation	Providing water requirement cleats for each ecological zone Modern formation available on Lockland areas across zones Providing seasonal information on evaporation, evapotranspiration and other
	Agricultural mechanization	Provide relative information on land and mechanization with GIS tools
Ekiti	Crops	Control of Fall Army Worm particularly on maize improved seeds/seedlings

	Livestock	Vaccine's failure in poultry production In-breeding in rabbit production
	Fisheries	Fish disease and water quality management Fish feed formulation
	Agroforestry	Control of fruit piercing moth and fruit flies in citrus Control of corn borer infestation in plantain
	Agricultural Mechanization	Mushroom production technology
	Irrigation	Preparation of recipes from some food crops
Lagos	Crops	Prevention/control of armyworm maize, plantain/banana
	Livestock	Alternative cheap source of energy and Protein in feeds Reduction in cost of production
	Fisheries	Fishing materials More research work on WESAFU Tilapia culture
	Agro-forestry	Alternative research into snail feeds Appropriate fertilizer requirement for plantain and kolanut
	Irrigation	Overall effect of drip system in vegetable production More hydro-pholics
	Agricultural Mechanization	Fabrication of cheap agricultural equipment and implements for high quality harvest
	Women in agriculture (WIA)	Specific programs for nutrition, benefits of nutrition on agricultural produce/products
	Others (specify)	Indigenous technology for all farm enterprises
Ogun	Crops	Crop protectors Accessibility to research findings
	Horticulture	Disease resistant to major disease in Tomato especially Bacterial wilt Combating effects of climate change in horticultural crops Effective and less expensive irrigation system for farmers More IPM in horticultural control Guava of insects and pest disease of Guava and Mango
	Livestock	Modern breeding of small ruminants
	Fisheries	Cost effectiveness of fish feeds to growth and culture
	Agro-Forestry	Control of weeds with OFSP (Sweet Potato) in Plantain Plantation Control of Black Sigatoka (BSD) disease in Plantain Plantation with Plantain hybrid var. (PITA Series)
	Irrigation	Rehabilitation of the existing irrigation facilities in the State like wash-bore and tube well
	Agricultural Mechanization	Production of more small equipment, implements and machines available for farmers Use of censored or AI (Artificial Intelligence) equipment for precision farming Exposure of new technologies to Engineers Provision of dams Advocacy on the use of modern agricultural processing

		Equipment/machinery
	Extension Service	Communicating effectively with farmers (SHF) using E-Extension method
	Women in Agriculture (WIA)	Acceptability of flours made from cocoyam and plantain Storage and shelf life of juices made from fruit vegetables at Home level to enhance nutrition. Utilization and processing of rice as confectionaries and food Drink Utilization of root tubers in confectionaries
Oyo	Crops	Drought tolerant varieties due to climate change Pest tolerant varieties in maize (armyworm) Disease tolerant varieties in cassava
	Horticultural crops	Disease tolerant varieties in tomato Tolerant pepper fruit drop varieties
	Livestock	African swine fever Rabbit hemorrhagic disease
	Agro forestry	Mango Die back Cocoa black pod
	Agricultural Mechanization	Inadequate/obsolete processing equipment to be replace
	Extension Service	E-extension platform
	Women in Agriculture (WIA)	Provision of modern processing equipment Training of women-In-Agric Staff (processing) Training of WIA staff (packaging, storage, preservation and marketing)
SOUTH EAST ZONE		
States	Problems	Identified Areas for Research
Enugu	Crops	cocoyam fungal attacks Technologies to cut down cost of planting rice
	Livestock	Technologies in ranching of Muturu cattle Improvement of local goat with exotic breed through cross breeding
	Fishery	Fish feed production using locally sourced materials
	Agro-forestry	Technologies to domesticate agroforestry crops that has comparative advantage
	Irrigation	Locally fabrication of irrigation equipment using indigenous materials e.g Achara
	Agricultural Mechanization	Hire purchase of agricultural equipment at affordable price
	Extension services	Increase in extension and contact by constant
	Crops	soil sample test/Training and retraining agronomist
	Horticulture	new varieties of Trees, perennial vine fruits, vegetables
	Livestock	veterinary facilities/services for livestock
Fisheries	fish value chain	

Ebonyi	Agro-forestry	Research economic value of forestry Importance of forest guard
	Irrigation	irrigation facilities, Dam construction and funding
	Agricultural Mechanization	agricultural mechanization program Modern machinery/ equipment
	Women in agriculture (WIA)	women involvement and their importance in agriculture
Imo	Crops	Sudden death in yam
	Horticulture	Crinkle leaf in teliferis
	Livestock	Production of crossing hybrid birds with local chicks
	Fisheries	Production of Heterotis fingerlings as alternative to catfish fingerlings Mono sex tilapia
	Extension Services	Extend of adoption in crops, livestock, fisheries And agroforestry packages Use of ICTs Best of research Need to research
	Agroforestry	Resilient crops to climatic change Coconut wilt
	Irrigation	Need of Integrated Research Need to redefine irrigation system
Anambra	Crops	Cocoyam fungal attack Armyworms in maize
	Horticulture	Sigatoka in plantain and banana Coconut abortion
	Livestock	Sudden death in broilers Poor performance of fish seed
Abia	Crops	Best method of weeding in crop production Maize diseases
	horticultures	Production of early maturing variety of Banana/plantain
	Livestock	Cost minimization of feeds/feeding Improved breeding stocks
	Fisheries	Cost/ effective production efficiency of tilapia in the state. Production of other species of fish apart from catfish and tilapia.
	Agro-forestry	Mushroom production technology in Abia state
	Irrigation	Use of abundant water resources in Abia state for irrigation
	Agricultural Mechanization	Production of cheaper and simple farm machines
	Extension Services	Production of other models of extension service delivery apart from T&V and FFS
	Women in agriculture (WIA)	Information on value chain and other processing technologies

SOUTH SOUTH ZONE

States	Problem	Identified Areas for Research
Cross Rivers	Crops	Development of Organic substances for control of insect pest and their rates of application Improvement on cassava peeler machine

		Simple technology to cut down labor cost in row planting of rice
	Horticultural crops	Preservation of perishable crops technology e.g. okra, scent leaf, telferia
	Livestock	Feed formulation and livestock measurement using as improved livestock feed for small ruminants
	Fisheries	Alternative source of fish feed to boost aquaculture production
	Agroforestry	Control of termites' attack and white flies infection on citrus Training on the use of climate smart agriculture
	Agricultural Mechanization	Cost efficiency/effective irrigation system Improvement of the drip irrigation system
	Extension Services	E-extension through farmers' helpline for effective and efficient service delivery Extension and effective use of social media platform
	Others	Organic way of controlling weeds and pest. Effective ways of safety use of agrochemicals
Bayelsa	Crops	Fund to carry out researches in the 3 zones is not there
	Livestock	How to process cassava peels into animal feeds / sugarcane husk for poultry diets
	Fisheries	To set up an industry for the formation of feed from local materials for the production of hetero branchus Spp
	Agro-Forestry	How to construct green house for the multiplication of plantain suckers
	Agricultural Mechanization	Government should provide traction for the local farmers and milling machines
	Extension Services	Extension should be giving more attention so that the rural area will be aware what is happening in the urban area
	Women in Agric. (WIA)	Demonstration of confectionaries (Soybean milk, cakes and chinchin)
Akwa Ibom	Crops	Improvement in the use of oil-palm bunch ash in control of army worm attack in maize crop
	Horticultural crops	Effective control of soil nematode attack for the production of tomato and pepper in the state
	Livestock	Utilization of locally made simple incubator for hatching eggs in poultry production
	Fisheries	Culturing of other aquatic animals other than catfish Production of floating fish feed from locally sourced raw materials
	Agroforestry	Production of mush room spawn from locally sourced raw materials
	Women in agriculture (WIA)	Effective control of pasteurization temperature on production of tiger-nut
	Delta	Crops
Livestock		Bird flu to be further researched on And swine fever
Agro-Forestry		Black sigatoka diseases on Plantain Fruit abortion and premature rotting
Extension Service		Proper integration of TV and FFS and harmonization to extension models into one unit

	Women in Agriculture (WIA)	Alternative storage devices for vegetable
Edo	Crops	i. Tomato wilt ii. Effective control of Army worm in Maize
	Livestock	Management of droppings/dung in populated environments
	Fisheries	Feed Formulation Fingerling production Effective poly-culture management
	Agro-Forestry	Vegetative propagation for rapid seedling multiplication
	Irrigation	Water requirement for various crops /Rate of application Irrigation management in rice fields
	Agricultural Mechanization	Mechanized palm oil production for small palm oil processor Storage of Agricultural crops Use of mechanical weeder
	Extension Service	Mainstreaming (CDD) Community Development Driven in Extension Effective use of Social Media Platforms in Extension service delivery Women in Agriculture (WIA) Preservation of fruits and vegetables
	Women in Agriculture (WIA)	Production of spores for edible mushroom

15.0 SPECIAL PROGRAMMES

Special projects/programmes implemented across the 6 zones are presented in Table 16.1. Some of the programmes were sponsored by the Federal Government, while others were sponsored by International/Donor Organizations/NGOs. Some of these programmes started as far back as 2011 and were still on-going in 2021. Some are sited in few communities, while others covered a number of Local Government Areas or States depending on the objectives and resources of the implementers. The programmes/sponsors include; FADAMA III, IFAD, ATASP-1, ICRISAT, APPEALS, FAO, World-Bank, UNDP AGRA, SG2000, Feed the Future etc. Key activities varied including outreach/capacity building for farmers and others across the agricultural value chains, establishment of FFS/FBS/cooperatives, rural infrastructural development, etc. The programmes achievement was significant at 95% in many instances (Table 16.1).

In North- Central (NC) zone Niger, Kogi, Benue, Plateau, Taraba, Nassarawa and the Federal Capital Territory had special projects; APPEALS, SG2000, WOFAN, FADAMA III, IFAD etc, which started at different times and recorded different levels of achievements as presented in table 16.1.

North –East (NE) states, Adamawa, Gombe, Borno, Bauchi had Special Project. Adamawa State special projects were the building of resilience in the North- east, resilience food security in Nigeria (UNDP). The take-off years were 2017 and 2018 respectively. Main activities included the distribution of seed and fertilizers to selected communities. Five (5) project sites sponsored by NORWAY, Sweden, Canada, Germany governments and the United Nations. Beneficiaries were 5220 farmers, 2 LGAs, over 10

communities and 40 households. The project was rated successful. Bauchi State special project were ICRISAT, SG-2000, NPFS, NIGERIA –WAY NAERLS, IITA, N-POWER, LIVESTOCK Productivity and supply. Take off years were 2006, 2017, 2018, and 2021 respectively. Key activities included sorghum value chain, Varietal demonstration, ZABOWA-Samog45, DECO-SAMSOG 46, CF-SAMSOG 49, promoting effective value- chain, Extension delivery services, Crop- Nutrition, Agro processing, PBR demonstration, researched on 3 insecticides amid Covid- 2019, Amphico, Emaeot, Sharpshooter. Project sites were 48 including the ADP. Sponsors are BSADP, ICRISAT, SAA, NAERLS, IITA and SIP. Beneficiaries were 61 LGAs and BSADP. Some of the projects are completed and others are ongoing. Bornu State Special project includes School Garden and seed distribution and take off date year is 2021, key activity was to promote Agriculture. Project sites were about 14 schools and 27 LGAs, sponsored by Plan international and FAO. Beneficiaries were about 420 schools and the project was rated satisfactory by the participants. Gombe special projects were SASAKAWA Global 2000, UNDP-GCT-TAP-JS, TRIMING, MERCY- CORP. Take off dates were 1992, 2017 and 2020. Major activities included demonstration, input distribution, based seed multiplication, demonstration of food and nutrition, stove construction, construction of agricultural centre, establishment of demonstration plots, establishments of FFBS and dry season demonstration, one hundred and twenty (120) project sites. Sponsors were UNDP, FMWR, TMWR and MERCY-CORP with over fifty (50) beneficiaries.

In the South –West (SW) zones, Lagos, Ogun and Ondo reported activities on Special Project. State special project includes NPFS and APPEALS, among others. Years 2007 and 2019 activities includes addressing household food security need, capacity building, conflict resolution, provision of inputs, resolving loans, empowering farmers on 3 value chain, poultry, aquaculture and rice, capacity building and training of women, IDPs and youths. Project sites were Statewide and sponsors were FMARD, States, LGAs, WORLD Bank etc. Beneficiaries were 15000 in total. Ogun State special projects were FGN/IFAD/VCDP, came into being in 2013. Focused activity was cassava and rice value chain with Eight LGAs and sponsored by IFAD. Beneficiaries were 16,500 farmers, project still on- going. Ondo State special project were farmers Business School and skill development for youth employment (SKYE). Take off date was 2019, activities included formation of youth activities training of youth on business skills for self-employment, about eighteen (18) LGA as project sites and beneficiaries are 1300 youths and the programme on going.

South South (SS) had Bayelsa, Cross- River, Cross- River, Rivers, Edo and Akwa- Ibom with detailed report on special projects in the states but Delta had no data. Cross- river special project were IFAD-LIFE-ND and APPEALS, take off date was 2018. major activities was developing livelihood support key, community value chain and enterprises in Niger-delta. Project sites were 10 and sponsored by IFAD-NAAC and had 3700 farmers as beneficiaries. Edo State special project were IFAD-LIFE programme, Edo Agriprenueur programme, independent farmers initiatives, cashew seedling production, fishery, N-CARES, take off date were 2018, 2020 and 2021 respectively. Activities were to support the unemployed and under- unemployed youths as well as women headed household in the production and marketing commodity, land development, crop production, livestock production, catfish production, broiler production, farm mechanization and support. Off take sponsorship, input provision, extension services, 430, 300 stocked fish farm; (136) 125000) stocked, rice 377 (716 hectares) Maize: 284 (816 hectares, Cassava 1,015 (1,760 hectares) were also facilitated. Land development; 3,200 (6,630, raising cashew seedling, distribution of cat fish seedling and cassava, rice maize, soybeans, poultry agro-processing. Project site was Statewide. Sponsors were IFAD/FGN/MG/DC/STATE GOV, EDSG, CBN with support from NIRSAL, FACAN, RSG and LGAs with several beneficiaries.

River State special project was State employment and expenditure for result (SEEFOR) and was put in place in 2013, its activities are implementation of small-scale rural infrastructure for SEEFOR Fadama,

community associations, establishment of SUB micro projects in aquacultures, livestock's fisheries and have 200 project sites. Sponsors are EU, WB, FG, RSG, LGA with 13 000 beneficiaries in total.

South- East (SE) shows Abia, Enugu, and Ebonyi with details of activities on special project in the State while Anambra and Imo had no data. Abia State special project was FMARD/SG2000/ADP, 2019 and focused on rice and cassava production. It was sponsored by FMARD/SG2000 and 56 farmers benefited. Enugu State has ATASP-1, APEARLS, VCDP, take off date were 2017, 2019 and 2020 respectively. Activities include rice, cassava and sorghum, poultry and cashew. Projects sites were Udemu, Uzouwani, Isi-Uzo, Arinri, Nkan-east and was sponsored by AFDB, World Bank and IFAD. Ebonyi State special project were IFAD, VEDP, JICA, AFJP, Women in Agriculture, take off date were 2014, 2020 and 2021. Activities includes crop value chain development, production of vegetables in triple quantity and processing. About 22 project sites and programmes were sponsored by IFAD, JICA, FMARD, Rice-Eu women. About two million farm families have benefited so far as at 2021..

Table 15.1: Special projects (North West)

State	Project	Take off year	Key activities	Number of project Sites	Sponsor	Percentage of achievement	No. of beneficiaries	Remark
Kebbi	ATASP-I	2015	Infrastructural development Outreach activity on rice, cassava and sorghum	8 LGAs	AFDA	80%	20,000	Good
	IFAD-CASP	2015	Capacity building on Agric. services	14 LGAs	IFAD/IDA	70%	20,000	Good
	FADAMA III	2014	Input supply Asset acquisition Rural infrastructural and capacity building			90%	15,000	Good
	RAAMP	2018	Rural access	500kms	World Bank	Processing Stage	Communities in 21 LGAs	
	CARI	2016	Training farmers on SRP-GAP in rice Production Training on FBS, CBS, FBO, Improved rice parboiling technique	7 LGAs	GIZ-CARI	95%	16,800	Good
Jigawa	IFAD International fund for Agricultural Development. Climate change Adoption and Agribusiness Support(IPAD-CASP)	2016	Establishment of farmers' field schools/business school, seed production, erosion control, wood Coats, shelterbelts community nursery, culvert, Solar powered boreholes etc.	9 LGAs 97 CDAS 28 VAS	FGN IFAD CASP	100%	727,000 Women and Youth	Achieved
	UNDP-GEF Project	2018	Fostering sustainability and resilience for food	10 communities	UNDP-GEF	50%	2000 Women 4000 Youth	

			security in northern Nigeria					
Zamfara	Trimming	-	Production of Rice	3 LGA	FGN	85%	4920	4 Years period
	IFAD Climate Change	2015	Climate adoption by farmers	14 LGAs	World Bank, FGN, State Govt.	-	-	
	FADAMA III AF	2014	Production of Rice	14 LGAs	World Bank, FGN, State Govt.		Not yet commenced	
Sokoto	Trimming Project	2017	Extension service		Bank of Agriculture	60%	2700	

Table 15.1: Special projects (North Central)

State	Project	Take off year	Key activities	No. of project sites	Sponsor	Percentage of achievement	Number of beneficiaries	Remark
FCT	Small holder horticultural empowerment project	2017	Market Oriented horticultural Production	2	JICA	80%	65	Good
	Women Farmers Advancement Network	2020	Encouragement of women in agriculture	5	WOFAN	70	750	Good
Kogi	SASAKAWA	2019	Trials	50		80%	50	
	APEALS	2018						

State	Project	Take off year	Key activities	Number of project sites	Sponsor	Percentage of achievement	Number of beneficiaries	Remark
Benue	FADAMA III AF	2017	Increase the Farmers Income	174	BNSG, FGN	65.95%	8956	
	IFAD	2014	Rice Value Chain and Cassava Value Chain	5 LGA	IFAD	95%	3465	Ongoing
	GIZ	2016	Training	19	GIZ	85%	54720	Ongoing
	UNDP	2017	Training	2 LGAs	UNDP/GEF		5781	Ongoing
	SASAKAWA/FIP Glo 2000	2014	Training	5 LGAs		95%	1000	Ongoing
	ACAL		Demons					
	Feed the future	2021	Training					
Niger	Niger AGRA rice Consultation Project	2018	Rice value chain	250 Demos	AGRA	90%	177,775	Satisfactory

Taraba	Alganzaki		Rice Processing States	Statewide	Private	80%		
	Al-ummai		Rice Processing State	Statewide	Private	97%		
	Fik-Flows		Maize Flour	Statewide	Private	82%		
	Uten		Gari Processing		Private	63%		
Nasarawa	GAP/GEM	2011	Rice Production	10	RICE AFRICA	68	8000	
	PROMOTION OF VITA, A	2021	MULT.OF VIT.A	11 LGAS	GIZ	70	28	
	MRKT ORIENTED AGRIC (SHEP)	2016	Training	13LGAs	JPDED-PLUS	70	150	
	IMPROV AGRIC. Production and Productivity of SHF	2021	Production	5LGAs	SASAKAWA	95	2500	
	GAP CASSAVA	ON2021	Sustainable Delivery Chain For Industrial Production Of Cassava Chips	4LGAs	GIZ Pacific	42		
Plateau	N- POWER	2018	NIL	17LGAs	FGN	NIL	2,672	

Table 15.1: Special projects (North East)

State	Project	Take off year	Key activities	Number of project sites	Sponsor	Percentage achievement	Number of beneficiaries	Remark
Adamawa	Building resilience in north east (FAO)	2017	Distribution of seed and fertilizer to selected community	5	Norway, Sweden, Canada, Germany	80%	5220	Good development
	Resilient food security in Nigeria (UNDP)	2018	Building livelihood to community		United Nations	70%	2 LGAs: Yola and future 10 communities 40 household	Good development
Bauchi	ICRISAT	2021	Sorghum value Chain Varietal Demonstration Zabowa-samsog 45 DECO-SAMSOG 46 CF-Samsog 49	3	BSADP ICRISAT		-	
	SG-2000 SAA Workshop	2021	Promoting Effective value chain Extension Delivery services		SAA	Achieved	BSADP	Achieved
	NAERLS	2021	PBR Demonstration	20	NAERLS	On process	32	On Process

	IITA	2021	Researched on 3 insecticide amid covid-19 Amphico Emacot Sharpshooter	20	IITA	90%	20	Among the 3 insect named: Amphico is the best
	N-Power	2021	Agric Extension	ADP	SIP			On posting
	Livestock Productivity and Support Project(L-PRES)	Veto officially take off Project still at preparator y stage since 2019	Enhancing the performance of livestock value chain. Crisis and communal conflict preventive and management among livestock crop value chain actors. Strengthen institution in the livestock sector for improved services delivery Increasing livestock productivity, resilience and commercializati on of selected livestock value chains	10 LGAs with comgrative advantage for cattle beef and small ruminants	Presently Supported by FMARD Preparatory facility and the state FMARD	Still at preparatory stage with 3 surveys mobilization conducted on: state with livestock resources, base personal, and facilities. Inventory of value chain actors Inventory of milk collection canters Milk processing facilities Insemination centers Abattoirs and slaughter slabs Livestock markets Actively organized state holders		
	NPFS	2006	Crop Nutrition Animal traction Livestock	9	BSADP	78%	7000	Successfull y achieved
	Nigeria-way	2017	Agro-processing	7 LGAs Jama'are, Katagun, Dass, Toro, Warji, Ganjuwa	GAC/MEDA	98%	17,352	Good
State	Project	Take off year	Key activities	Number of project sites	Sponsor	Percentage of achievement	Number of beneficiarie s	Remark
Borno	School Garden	February 2021	Promote Agriculture	14 Schools	Plan International	85%	420 Students	Satisfactory
	Seed Distribution	2021	Promote Agriculture	27 Local government Areas	F.A.O	75%	75 % Benefited	Satisfactory
Gombe	SASAKAWA GLOBAL	1998	Demonstration, Input	35 , 35, 339	NIPPON FOUNDATI	85% 90%	500 245	

	2000		Distribution, Based Seed Multiplication	35	ON	75%	360	
UNDP-GCT-TAP-JS	2017		Demonstration of food and Nutrition	2	UNDP	80	3,500	
			Construction of efficient cooking stove	2	UNDP	75%	2,130	
			Construction of Agriculture Centre Establishment of Demonstration Plots	2	UNDP	90	20,500	
			Establishments of Demonstration Plots	10	UNDP	60%	560	
TRIMING PROJECT	2020		Establishment of FFBS	54	FMWR	90	1,080	
			Dry season Demonstration	54	FMWR	65%	2000	
MERCY-CORP	2020		Demonstration on maize, Rice, Cowpea and G/NUT	6	MERCY CORP	70%	3,600	

Table 15.1: Special projects (South West and South East)

State	Project	Take off year	Key activities	Number of project sites	Sponsor	Percentage of achievement	Number of beneficiaries	Remark
South West								
Lagos	NPFS	2007	Addressing Household Food Security needs, Capacity building, Conflict resolution, Provision of input and resolving loans	10	FMARD State and LGA	50% 25% 25%	10103	A new site has been Added, Funding not Adequate
	APPEALS Project	2019	Empowering Farmers on 3 Value Chain, Poultry, Aquaculture and Rice. Capacity building and Training of women, IDPS and Youths	Statewide	World Bank, FMARD	100%	1792	Training Empowerment of Farmers, IDPS, Women and Youth are being done
Ogun	FGN/IFAD VCDP	2015	Cassava and Rice Value Chain	8LGAs	IFAD	80%	16,500	Ongoing
Ondo	Farmer Business	July 2019	Formation of youth activities	18 LGAs of Ondo	GIZ	32	1,300 youths	The program is

School			State				ongoing.
Skill Development for Youth Employment (SKYE)	July 2019	Training of youth on business skills for self-employment					
		Training of youth on good agricultural practices (GAP) on cocoa, maize, cassava and other					

South East								
Abia	FMARD/SG2000/ADP	2019	Rice and Cassava production		FMARD/SG2000		56	
Enugu	ATASP-1	2017	Rice, Cassava and Sorghum	Udemu, Uzouwani, Isi-uzo	AFDB	NA	NA	
	APPEALS	2019	Rice, Poultry and Cashew	Statewide	World Bank	NA	NA	
	VCDP	2019/2020	Rice and Cassava	Arinri, Nkani-East, Isi-uzo for rice and Enugu for Cassava	IFAD	NA	NA	
Ebonyi	IFAD VCDP	2014	Crops Value Chain Development	8 project site	IFAD	80%	1,500,000	
	JICA	2021	Production of vegetables in triple quantity	2 LGAs	JICA	65%	5120 farm families	
	AFJP	2020	Enumeration of rural farms	13 LGAs	FMARD	5%	Rural Farmers	
	Women in Agriculture	2021	Processing	2	RACE Women	EU 45%	1500 Farmers	

Table 15.1: Special projects (South South)

State	Project	Take off year	Key activities	Number of project sites	Sponsor	Percentage of achievement	Number of beneficiaries	Remarks
Cross/River	IFAD-LIFE-ND	2018	Developing Livelihood, supporting key community Value Chain and Enterprises in Niger Delta	10 Local Government Areas	IFAD-NAAC		37000	
	APPEALS	2018	Infrastructure Support production clusters	State wide	WORLD BANK	40%	60,500	
Edo	IFAD-LIFE Programme	2020	Support Unemployed and under unemployed	10 LGA	IFAD/FGN/NG/DC/STATE GOVT		150	
					342			

		youths as well as women headed household in production and market of select community in their commodity					
EDO AGRIPRENEUR PROGRAMME	2020	Land Development, crop Production, Livestock production, Catfish Production, Broiler Production, Farm mechanization and support Off-take farm. Sponsorship (input Provision, Extension Services 19 Catfish; 430,000 stocked, Poultry; 156(125000 stocked, Rice 377(716 Hectares Maize; 284(816 Hectares), Cassava 1,015(1,760 Hectares) Land development; 3,200(6,630	30	EDSG, CBN with Technical Support from NIRSAL			

	Independent farmers initiatives	2020	Provision of inputs (seeds, Fertilizers and crop protection products) for farmers in 4 focal crops; Rice, Maize, Cassava and Soya beans	18 Local Government Areas	EDSG	>3,500	1400		
	Cashew Seeding Production	2021	Raising cashew seedling with farmers	1	FACAN in collaboration with Edo ADP			On-going	
	Fisheries	2020	Distribution of catfish seedling to potential migrant/returnees	10M		40			
	N-CARES	2021	Cassava, Rice, Maize, Soybeans, Poultry, Catfish, Irrigation, Roads, agro processing	State-wide	World Bank	On-going. Target beneficiaries			Implemented using the Fadama 111 Structure
Rivers	State Employment and Expenditure for Result (SEEFOR)	2013	Implementation of small Scale Rural Infrastructure for see for FADAMA Community Association (SFCAs)	46	EU, WB, FG etc.	98%	46SFCA		
			Establishment of SUB Micro Projects in Aquaculture, livestock, fisheries etc. for seefor/fadama Groups (SFUG)	664	RSG, LGA	98%	6,750		
			Capacity Building for SFCAs	46	RSG, LGA	98%	6,750		

Table 15.1: Special projects (South South)

State	Project	Take off year	Key activities	Number of project sites	Sponsor	Percentage achievement	Number of beneficiaries	Remark
Edo	IFAD-LIFE Programme	2020	Support unemployed and under-employed youths as well as women headed household in production, processing and marketing of selected commodity in their community	10 LGAs	IFAD/FGN/NDDC/State Govt.		150	
Edo	Agripreneur programme	2019	Land Development, Crop Production, Livestock production, Cat fish Production, Broiler production, Farm Mechanization, support, Off-take, Farm Sponsorship (Input provision), Extension Services	30	EDSG, CBN, with Technical Support from NIRSAL	Catfish: 430(430,000 Stocked) Poultry: 156(125,000 Broilers stocked) Rice: 377(716 Hectares) Land development: 3,200(6,630 hectares)		
	Independent Farmers' Initiative	2020	Provision of Input (Seeds, Fertilizer and Crop Protection Products) for Farmers in 4 focal crops: Rice, Maize, cassava, and Soybeans	18 LGAs	EDSG	≥3,500 Farmers reached	1400	
	Cashew Seedling Production	2021	Raising cashew seedling with farmers	1	FACAN collaboration with Edo ADP		Ongoing	
	Fishery Intervention	2020	Distribution of catfish seedling to potential migrant/returnees	IOM		40		
	N-CARES	2021	Cassava, Rice, Maize, soybeans, Catfish, Irrigation, roads, agro processing	Statewide	World Bank		On-going, Target beneficiaries for the first quarter of the 2 years project is 627	Implemented using the FADAMA III Structure

16.0. GENERAL CONSTRAINTS IN AGRICULTURAL PRODUCTION

Generally, the constraints to agricultural production in 2021 were similar to those of the past four years, especially with regard to the increasing incidences of insecurity. The Covid-19 pandemic, which began in 2020 continued to impact on agricultural production in a diminishing trend. The data in this section are presented according to the spread for the country, using the number of states as a unit of measurement.

16.1. Constraints Related to the Covid-19 Pandemic

The global Covid-19 pandemic, which affected all economic activities from 2020, continued to impact agricultural production in 2021. Albeit in a less proportion than the previous year. The comparative data in Figure 16.1 show that all constraints related to Covid-19 have considerably declined in 2021. The most areas with noticeable reduction was the restriction on movement, followed by the fear of contracting the disease observed in just 3 and 3 states respectively, compared to 28 and 20 recorded in 2020. The improved atmosphere and human activities could be the lifting of ban on movement restriction as well as the commencement of vaccination nation-wide and the continuous functioning of the test centres.

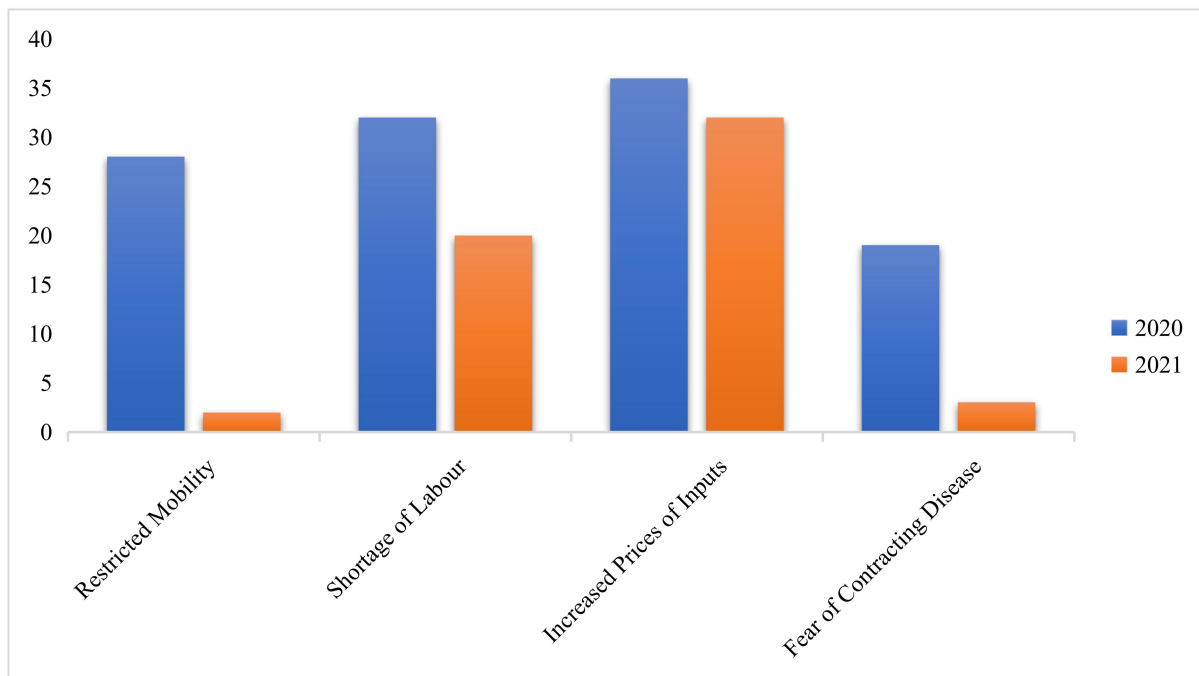


Figure 16.1: Constraints related to Covid-19 Pandemic

16.2. Rainfall and Weather-related Challenges

There was generally a higher amount of rainfall experienced in all the zones in 2021 as against 2020, except in the North West and South East. This means there were more rainy days and higher incidences of flood in 2021. Despite the higher rainfall, there were serious cases of dry spell/drought in the North-Central and the South-South. These results were in line with the 2021 Seasonal Rainfall Prediction (SRP) by the Nigerian Meteorological Agency (NIMET) that Nigerians should prepare for some dry

spells in the affected areas (north-central and South South zones). The data in Figure 16.2 2 show that severe flooding was most frequent in the South West and South South, while poor rainfall distribution was reported in 4 states each for the North West and the South East zones.

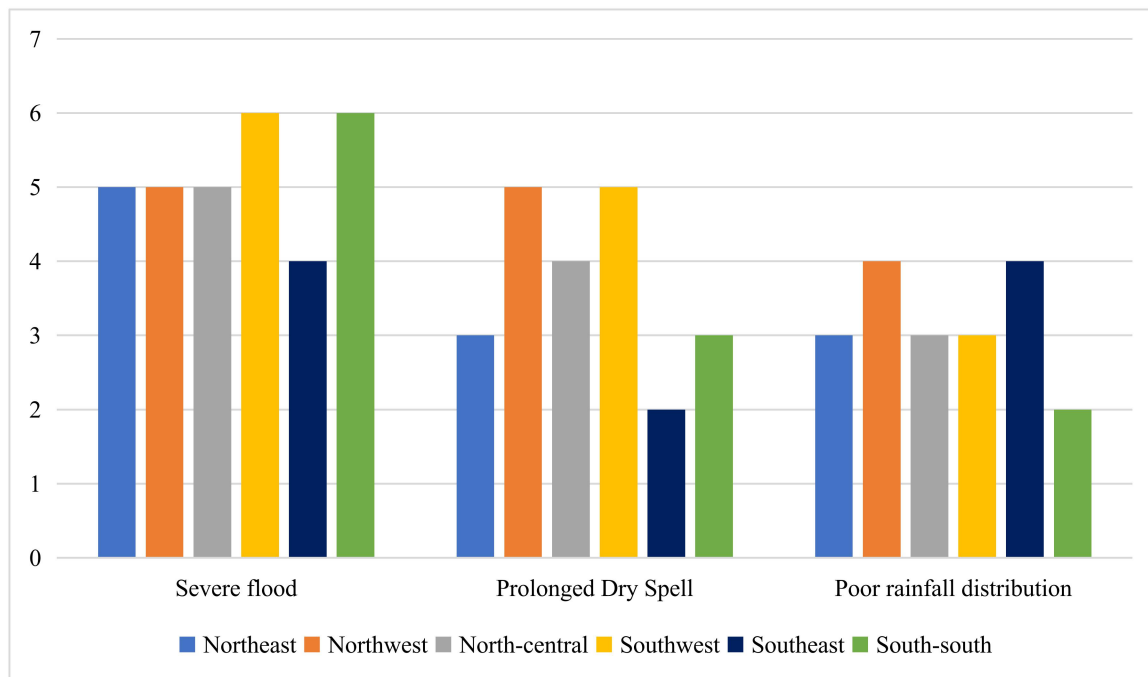


Figure 16.3: Flooding, dry spell and rain fall distribution in Nigeria in 2021

16.3. Farm Input provision, availability and accessibility

Besides adequate rainfall and the right soil property, agricultural productivity depends on quality inputs used (such as seeds, animal stocks, fingerlings, fishing nets, fertilizers and herbicides). The results from the 2021 survey (Figure 16.3) show that the provision of agrochemicals by governments was largely inadequate in 28 states and untimely in 23 states. Only about 14 states actively procured and distributed agrochemicals (pesticides, herbicides, fungicides and growth enhancers). Almost all states in the South East did not report agrochemicals procurement and distribution. For those with reports, their major sources of agrochemicals were state and federal governments. Moreover, although 29 states reported distributing seeds (such as maize, millet, rice, soybean, cowpea, watermelon, cucumber, celosia, okra, tomato and pepper), both famers and ministry officials indicated that the inputs were largely inadequate and too expensive for many small-scale farmers. Specifically, the inputs were unavailable/ inaccessible in 25 states and inadequate in 24 states. This meant that so many farmers in Nigeria were not able to access inputs at subsidized prices in for 2021.

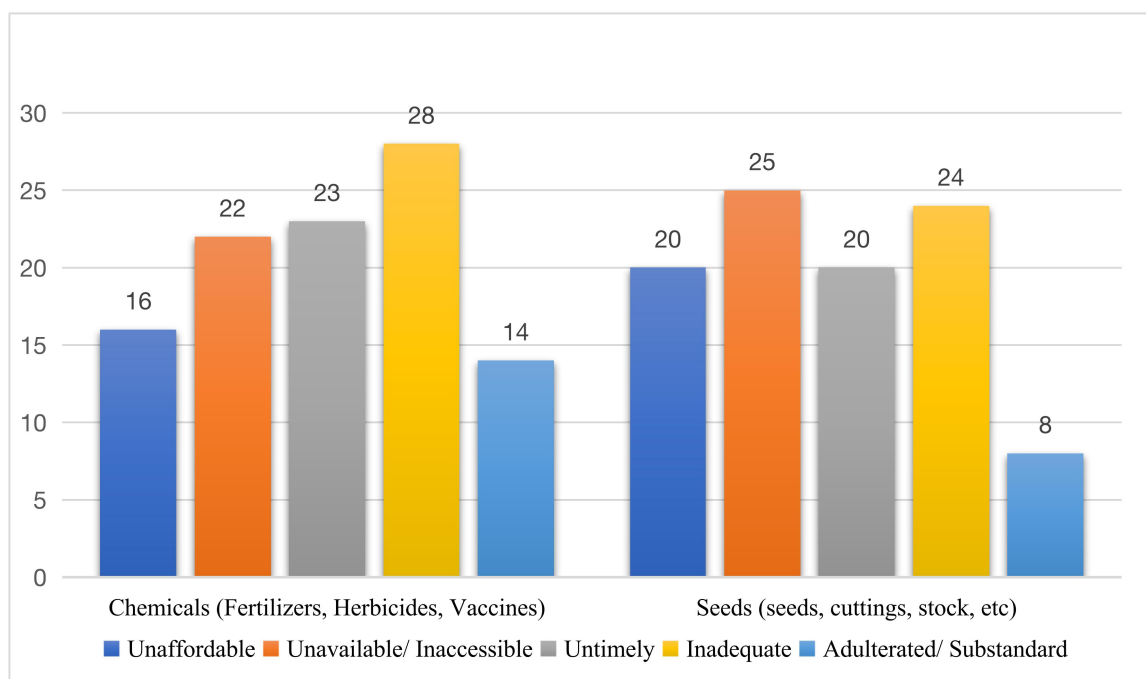


Figure 16.3: Farm inputs procured and distributed in Nigeria in 2021

16.4. Challenges of labour and pests/diseases

One major farming constraint over the years concerns the cost of labour and inputs. Yet, farm management is critical to agricultural productivity and development. In addition, our farmers are mainly smallholders, with low technology utilization. Consequently, the 2021 data show that high cost of production was reported in 35 states. The average cost of producing major cereals, such as maize, rice, sorghum and soybean, remarkably increased across the zones. For example, the South East reported ₦205,000 and ₦325,000 for maize and rice production per hectare, compared to ₦154,000 and ₦249,500 of 2020 data, representing increases of 33.1% and 29.9% respectively. In Bayelsa State (South South zone), the production costs for cowpea and maize markedly increased by 104.6% and 58.7% respectively. There were also high incidences of diseases reported for crops in 29 states (a trend that similar to 2020 reports). The diseases included cassava blight, mosaic, cercosporal white and brown spots; as well as nematodes, scary insects, beetles and dry rot for yam and cocoyam. There were reports of livestock diseases (new castle, ‘Gamboro’ and coccidiosis, CBPP, tuberculosis and foot and mouth disease, and PPR, among others) in 25 states. These diseases resulted in yield loss from 15% to 30% in crops and livestock.

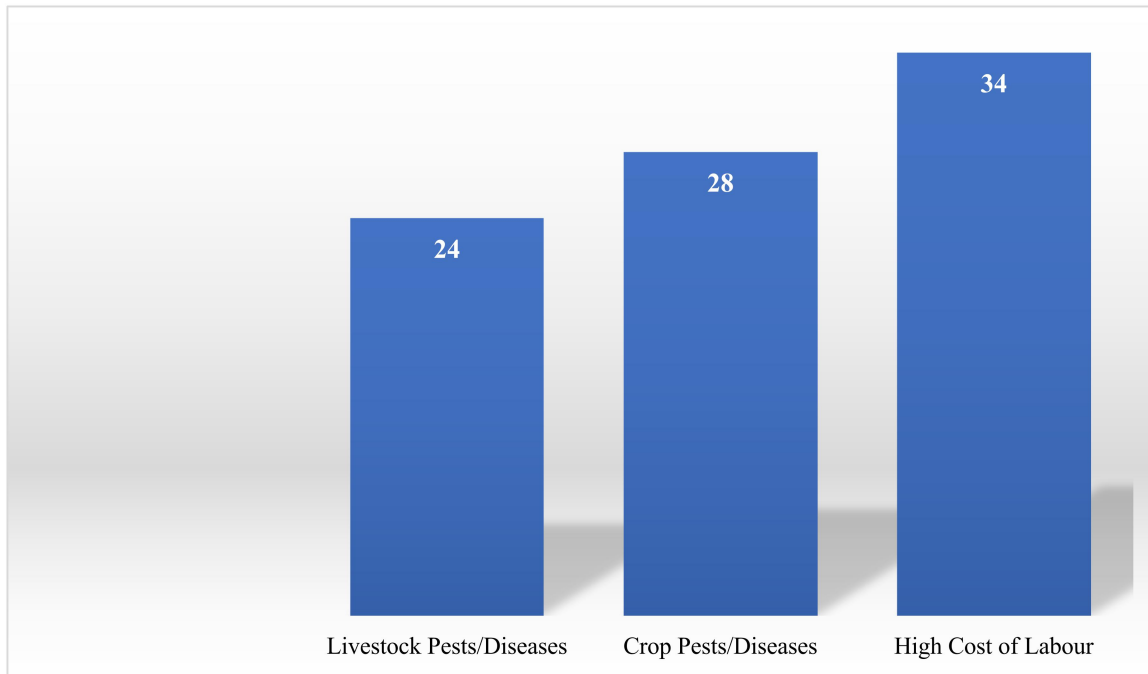


Figure 16.4: Reported cases of pests and diseases, as well as cost of labour

16.5. Agricultural Mechanization

Figure 5 presents a comparative perspective on the status of agricultural mechanization for the country between 2018 and 2021. The data show almost a similar trend for agricultural mechanization for the years under review. Comparatively, however, Nigerian farmers satisfied with tractor suitability and irrigation facilities in 2021. Though they were slightly satisfied concerning tractor availability/ accessibility; 27 states still reported this as a challenge in 2021. It is however promising that in 2021 the number of functional government tractors in Nigeria has increased from 2,335 of 2020 to 3,476 representing about 49% increase. Also, the number of functional private tractors was 1,008, compared to the 812 of 2020, an increase of 24%. Ironically, the increase the number of functional tractors did not positively influence the cost of tractor hiring in the country. Thus, there were reports of high cost of tractor hiring in 31 in 2021.

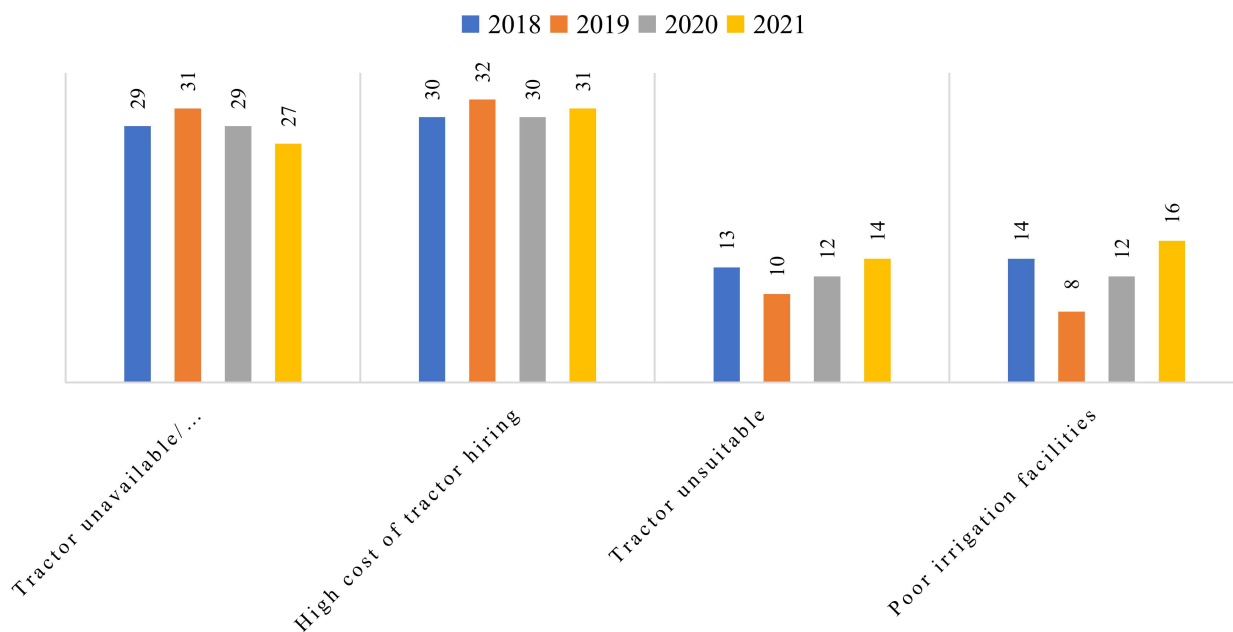


Figure 16.5: A four-year comparative data on mechanization

16.6. Extension Provision Activities

The Agricultural Development Programmes (ADPs) were established as the extension arm of state ministries of agriculture to disseminate technologies for boosting food production and enhancing the livelihoods of farmers. Indeed, without the right application of agricultural technology, no farmer can maximise productivity. But the absence of sustainable funding for the ADPs since the withdrawal of World Bank counterpart funding in the early 1990s has made them largely ineffective in carrying out their responsibilities. For the past ten years, the key constraints to extension service provision in the country has been poor funding. However, the funding situation in 2021 was far better than those of 2019 and 2020, as only 5 states reported zero funding, compared to the over 20 states of the previous years (Figure 16.6). However, about 22 of the 31 states and the FCT that had fund released indicated that it was inadequate. Availability of fund also impacted positively on staff mobility and capacity building activities.

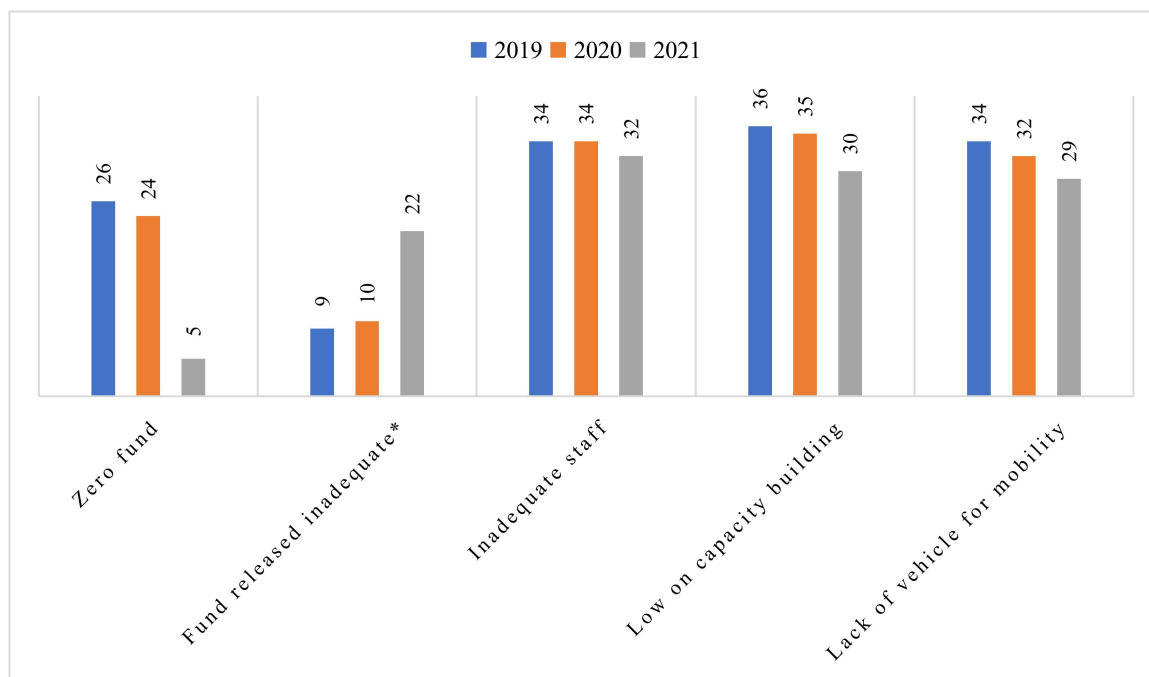


Figure 16. 6: Comparative data on constraints related to ADP activities (2019-2021)

NB: * ADPs that got funds for capital projects

16.7. Agricultural Broadcast

Broadcast channels are radio and television (TV), which are mostly used by state ADPs to disseminate agricultural information. Over the years, agricultural programmes produced and aired in each state have been adjudged as very effective means of reaching farmers, especially in rural areas. However, despite the fund availability in 2021 (see Figure 6 above) compared to the previous two years, there was a decline in the number radio and TV programmes for agricultural development. The major constraints are presented in Figure 16.7 were high cost of airtime, reported in 34 states; lack of media packaging equipment, reported in 31 states; inaccessible channels (in 18 states) and inappropriate time of broadcast (in 12 states). With regard to radio programmes, 10 states (Katsina, Bauchi, FCT, Kwara, Ekiti, Ogun, Oyo, Abia, Osun, Enugu) made significant headway in producing and airing radio programmes; for television, only 7 states (Katsina, Zamfara, FCT, Kwara, Ekiti, Enugu and Edo) produced and aired programmes in 2021. Notwithstanding, several states acknowledged some successful collaborations with private organisations for agricultural broadcasts.

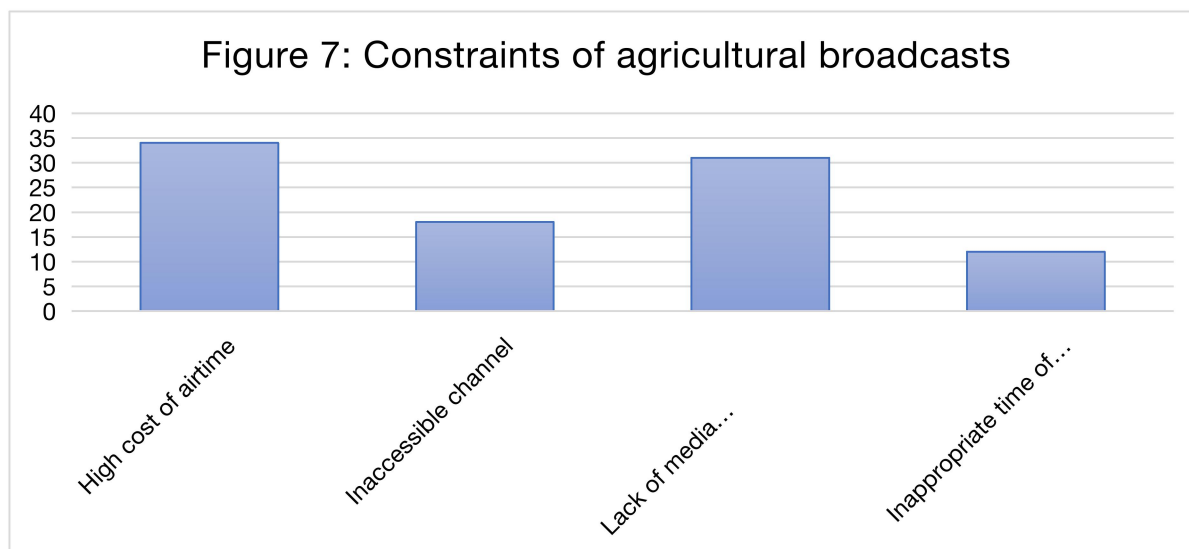


Figure 16.7: Constraints to agricultural broadcasts in 2021

16. 8. E-Extension

The global Covid-19 pandemic and its containment efforts/ challenges have shown that e-extension should be embraced to achieve effectiveness in agricultural extension and advisory services among stakeholders. E-extension in this regard includes capacity building and mobilization for EAs and farmers, as well as input distribution and agricultural advisory provision. The survey data in Figure 16. 8, however, shows poor mobile phone network (and internet connectivity) in 29 states as well as the challenge of high data cost in 30 states were challenges faced by farmers and agricultural related organizations in Nigeria in 2021. The 2021 situation could be adjudged an improvement ; there was reports of ‘lack of support infrastructure’ in 24 as against 28 states in 2020. The challenges of poor network could be ascribed to the shutting down of networks in some states by the government for the purpose of tackling insurgencies, bandits and kidnapers’ activities especially in 9 states (see Figure 16.9).

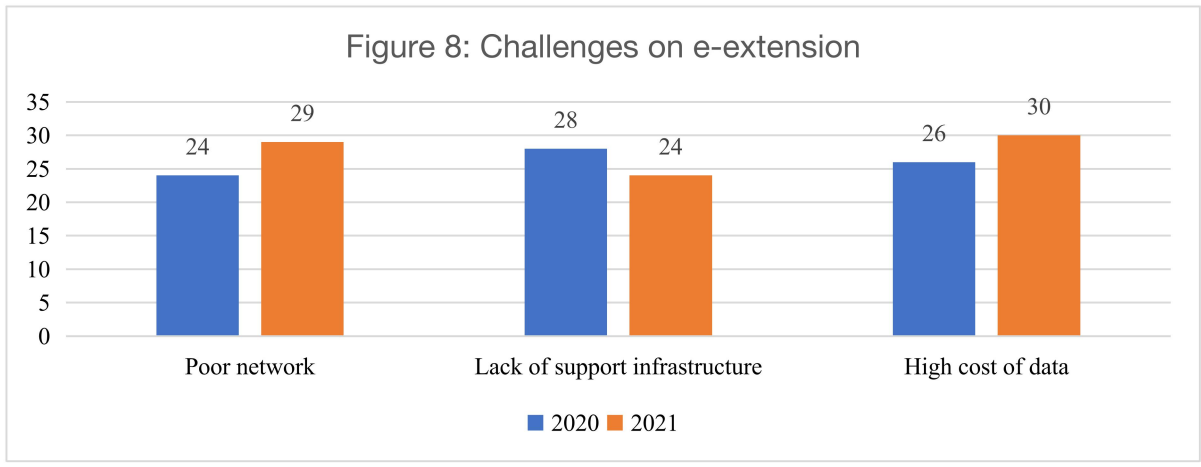


Figure 16.9: Challenges to e-extension in Nigeria in 2021

16.9. Security-related Challenge

For the past five years, the survey has reported on agricultural productivity constraints related to rising insecurity. The 2021 data in Figure 16. 9 reveal a new dimension to insecurity in the country. Twenty (20) states reported crop theft, a 100% rise from the 10 states reported in 2020. Perhaps this was related to the rising food prices and national economic depression which began in 2020. Famers continue to lose their crops to theft especially before harvest and while crops are stored (pre-harvest). The data also show a drastic increase of over 120% of the activities of armed bandits across the nation, especially in the North West. There was a consistent increase in the activities of kidnapping and cattle rustling, from 2019 to 2021. There were records of reduction in militancy, farmer/herders clashes and other communal clashes in some states. Indeed, violence and insecurity have far-reaching implications for economic development, especially in the areas of agriculture and foreign direct investments.

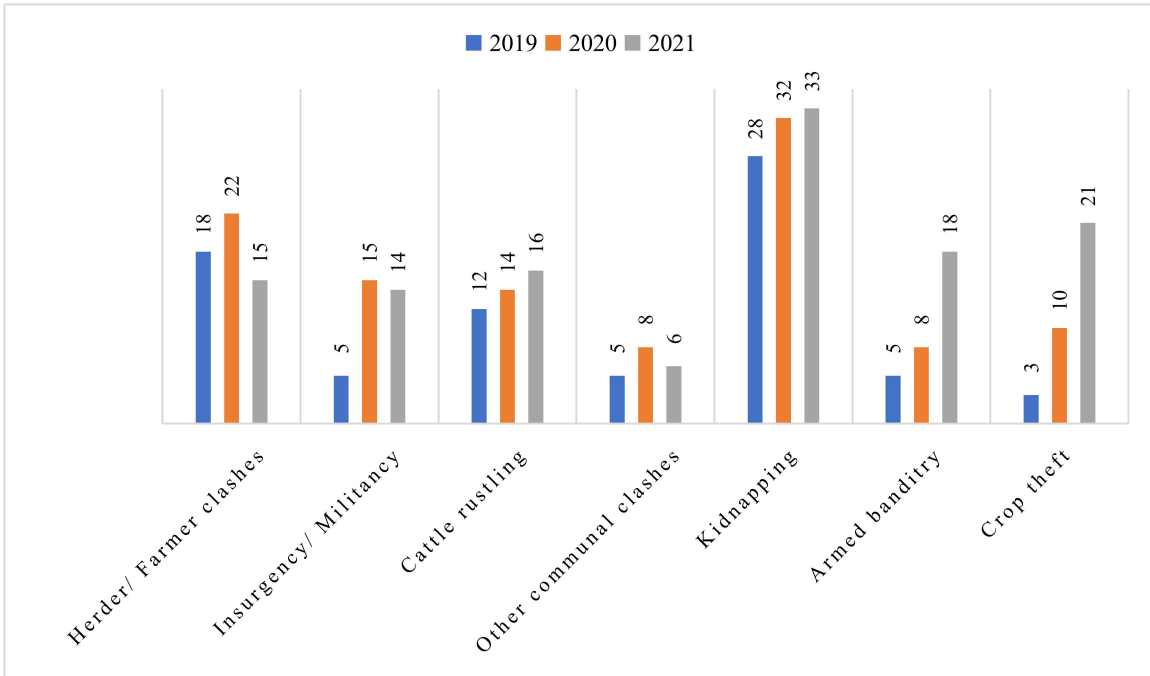


Figure 16.10: A three-year comparative information on insecurity in Nigeria in 2021

17.0. CONCLUSIONS AND RECOMMENDATIONS

The wet season agricultural performance survey in Nigeria for 2021 was conducted with the support and collaboration of all state ADPs and the ministries of agriculture and many other related organizations. The survey results are vivid picture of agricultural activities and development in Nigeria for the year under review. The results indicated, among others, that the Covid-19 global pandemic greatly affected agricultural activities in the country. The results also highlighted the challenge of rising insecurity situation, as well as the declining State of extension provision in the country and its threat to national food and nutrition security. As a result, the field outlook for 2021 and production forecasts showed that outputs would be less than those of 2021 in nearly all areas of agriculture. Therefore, the following recommendations are made:

17.1 Investment in climate-smart agriculture: Increasing incidences of epidemic floods, draught, pests and diseases should be a cause for increased investment, farmer education and other extension activities to checkmate the impact of climate change. It is thus imperative for the various tiers of government to increase investment in climate change mitigation and adaptation technologies. This includes the provision of funding and infrastructure as a response strategy (involving specialists in research, extension and climatology) for intervening in this monumental imbalance in agriculture and the ecosystem. The strategy should take into cognisance the development and promotion of disease-resistant, drought-tolerant, flood- tolerant, and early maturing varieties.

17.2. Accelerating the passage of bill (policy) on extension and advisory to strengthen agricultural extension delivery: This survey has established that, since 2009, extension activities have been on the decline, mainly due to dwindling funding for capital projects. This challenge has led to low-capacity development of extension personnel, unavailable extension packages, lack of vehicles for field visits, poor extension-farmer contacts, low technology transfer (MTPs, FNTs, SPATs, OFARs, FFS, etc) and very poor farmers' group management, among others. To this end, stakeholders have developed and validated a draft policy on extension and advisory (2018) seeking the establishment of a sustainable funding system as well as the standardization/ professionalization in the subsector. Therefore, it is imperative to accelerate the passage of this essential document into law with the aim of strengthening agricultural extension delivery.

17.3. Building sustainable grassroots extension delivery institutions at the federal, state and local government levels. Agricultural extension services are the bridges between research and the farm/farmers. Thus, they should have institutional structures on ground which will surpass any regime in order to continuously serve the people. The Federal Ministry of Agriculture and Rural Development should intervene in the recent scrapping of Oyo State ADP and the deployment of its staff to the State Ministry of Agriculture. The ADP has served farmers in the state for decades in advancing agricultural productivity and farmers' livelihoods under successive administrations. It is a dysfunctional approach to collapse the structure by a government that promises agricultural development and prosperity.

17.4. Evolving a definitive action plan on stemming insecurity: The spate of insecurity in the country since 2018, especially with implication for agricultural activities, is becoming worrisome. Kidnapping, armed bandits' activities, rustling activities, and herdsmen/farmers conflicts have risen to an alarming proportion. Large farmlands were overrun by armed bandits and herders. Many farmers would still not venture on to their farms even as the data for the 2021 were collected. Some of them have completely abandoned farming activities for other jobs; this development is not encouraging for the agricultural sector's development. Indeed, government has made tremendous progress in containing the activities of militants and insurgents in recent years; but rather than abating, incidences of insecurity seemed to be on the rise. It is thus, advised that new strategies to tame this ugly trend should be put in place even after the perpetrators have been subdued.

17.5. Enhancing productivity through an effective input subsidization blueprint: Although there were some forms of input support for farmers by governments in 2021. Many farmers could not access such support. Few who had access to them could not afford the unsubsidized prices, while those who could afford them did not get enough for their farming needs. A compromise on agricultural inputs is a compromise on yield quantity and quality, as well as on the income of the farmers all actors along the value chains. There is thus a need to evolve a cost-effective and efficient input subsidization blueprint especially on seeds/seedlings/breed stock, chemicals and credit.

17.6. Increasing support to the National Farmers Helpline as an e-extension strategy to boost advisory services: The ratio of extension agent to farm families has remained astronomically low (1:14,000 for some states, instead of FAO's recommended 1:1000). Also, the high rates of mobile phone and internet penetration for the country, as well as the large population of youths have created an enormous opportunity for an e-extension strategy that will ensure a robust agricultural knowledge and information database. In this regard, the National Farmers' Helpline should be given all the necessary support (human and material resources); conducive environment should be enabled to be fully operational. The Helpline Centre should be facilitated to secure a 4-digit short code for operation with the help of NCC and FMARD. Currently, the centre uses a SIM bank and a regular 11-digit phone number for calls. This application is not user or cost-friendly. Therefore, to achieve an information-based and ICT-driven agricultural extension system, the Helpline should be in full operation, with subsidized calls to and from farmers, to strengthen their production-enhancing indicators.

17.7. Setting up of an Agricultural Trust Fund to cater for farming activities, especially in periods of emergency: Impact of the Covid-19 pandemic on agricultural productivity in 2020 and 2021 was enormous. Although the havoc of the pandemic was felt globally and there were some forms of palliatives given to Nigerians, the impact could have been minimised if an agricultural trust fund had been in operation. Therefore, the government should set up an agricultural trust fund to cater for farmers and farming activities especially in periods of emergency. The Trust fund should take care of farmers, farming inputs, and agricultural advisory services.

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